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Address.

AN ADDRESS AT THE CELEBRATION OF THE FIFTIETH ANNIVERSARY OF THE ESTABLISHMENT OF THE TRAINING SCHOOL FOR NURSES AT THE NEW ENGLAND HOSPITAL FOR WOMEN AND CHILDREN, OCTOBER 31, 1922.

BY ALFRED WORCESTER, A.M., M.D., WALTHAM, MASS.

THIS is a notable occasion. Fiftieth anniversaries, whether of persons or of institutions, are always interesting. But today we celebrate no ordinary event.

Among the many beneficent services rendered by the New England Hospital for Women and Children, the most noteworthy is the establishment here of the first American training school for nurses, in September, 1872. Other hospitals preceded this in the "treatment of the diseases of women and children and in giving clinical instruction to female students of medicine," as two of the three purposes of this Hospital are stated in its Act of Incorporation.* But in the third purpose, as stated in this same Act, that "of training nurses," this Hospital has absolute priority.

For, although nine years intervened between the acceptance of the Act of Incorporation and the establishment of their training school, this

purpose was kept steadily in view by the noble company of women who founded this Hospital and guided its early development. And as soon as a building was secured, suitable for the enterprise, this training school was begun.

In the Annual Report for the year ending September 30, 1872, the secretary, Mrs. Ednah D. Cheney, says regarding the Education of Nurses: "In order more fully to carry out our purpose of fitting women thoroughly for the profession of nursing, we have made the following arrangements:

"Young women of suitable acquirements and character will be admitted to the Hospital as school nurses for one year. This year will be divided into four periods; three months will be given respectively to the practical study of nursing, in the medical, surgical and maternity wards, and night nursing. Here the pupil will aid the head nurse in all the care and work of the wards under the direction of the attending and resident physicians and medical students. A course of lectures will be given to nurses at the hospital by the physicians connected with the institution, beginning on January 21, 1873. Certificates will be given to such nurses as have satisfactorily passed a year in practical training in this hospital."

And in the same report, Dr. Lucy E. Sewall says:

"Our plan is to take them in for one year, training them thoroughly, theoretically and practically; teaching them medical, surgical and

*Approved March 12, 1865.

confinement nursing. At the end of the year, if we are satisfied with their behavior and their knowledge, we shall give them certificates signed by the hospital doctors."

This announcement of a real training school for nurses is the first of thousands of similar announcements since made in this country, and such leadership in one of the great advances of the last half century is a high honor for this hospital.

But the claim of priority for this school does not rest solely upon this early announcement of intentions, nor yet upon the purpose of training nurses, as stated in the Act of Incorporation nine years earlier. A still more solid foundation for the claim is to be found in the same report, for the year ending September 30, 1872, in this statement:

"At present we have five nurses in training."

No other American hospital fifty years ago could have published any such statement. And yet, in spite of the undisputed fact that the diploma given to one of these five pupil nurses, Linda Richards, is the earliest dated American diploma, the priority that rightly belongs here has been claimed for the Bellevue training school. It will be interesting, by the way, to see what date they will select for their golden jubilee.

That the great New York institution should ignore this brave little pioneer school in Roxbury is not unnatural. Such treatment of the small by large institutions is not unprecedented. But what excuse is there for a former superintendent of this earliest school in America, who publicly controverts its priority and argues in favor of Bellevue's spurious claim?

If this fiftieth anniversary celebration does nothing more than to establish the rightful claim of this school to American priority, it will not have been held in vain. And before another half century shall elapse this cradle of trained nursing in this country ought to be, and doubtless will be, visited as a shrine; just as pilgrimages now are made to the tiny summer house in the garden of Kaiserswerth where Flieckner's training school began less than twoscore years before.

When we think of what nursing was before its renovation, and when we remember what the world owes to Theodor Flieckner and to Florence Nightingale, it is easy to see why every slightest claim to American priority in the movement should be magnified.

Not only have hospitals been redeemed from the pest holes that they were, but in private homes, as well, countless lives have been saved, untold suffering has been assuaged, and in thousands upon thousands of instances the other members of the family have been relieved of the heavy and anxious burden that otherwise would have laid them low.

Next to the discovery of anaesthetics, and then to the discovery of the principles of asep-

sis, the advance of medical science, during the last three or four score years, is due most largely to the introduction of trained nursing. And in the latest beneficent advance, in the prevention of diseases and in safeguarding the public health, it is not too much to say that the assistance of trained nurses is absolutely indispensable.

In the history of trained nursing much of the confusion, as well as the conflict regarding priority, is due to the difficulty of distinguishing modern nursing from what preceded it. For instance, in years gone by when Dr. Susan Dimock was credited, as she should be, with the honor of starting this school, Dr. Zakrzewska used to ask why the nurses she herself had trained in preceding years should be so left out of account. And, indeed, in her case, that was not an easy question to answer. For she herself was an excellent nurse and an excellent teacher of nurses. To begin with, before she acquired her medical education, she was an expert midwife and teacher of midwives. And a highly trained midwife is both an obstetrician and an obstetric nurse.

It is therefore no wonder that many of Dr. Zakrzewska's nurses, whom she trained in the earlier years of this Hospital, were afterwards in great demand and held in high public favor. But, even so, it was difficult in those early years to find enough women willing to work here in these wards the six months that were then required before certificates were given them.

The fact is that the training, as then given, was not what ambitious and intelligent women wanted. It was all practical enough, no doubt. They were taught what to do and how to do it, but they were not taught *why*. This is the fundamental difference between a trade and a profession—between old-time and modern nursing—between Dr. Zakrzewska's apprentices and Dr. Dimock's pupil nurses.

In the history of other hospitals, where the change was more marked, there is no such difficulty as here in distinguishing between the old and new kinds of nurses. In the Bellevue Hospital, for instance, at least part of their supply of nurses used to come from the notorious Five Points criminal court, where prostitutes were given the option of a jail sentence or a term of service as nurses. Their conduct in these wards easily can be imagined, even without Dr. Austin Flint's testimony that in his interne days it was no uncommon occurrence of a winter morning to find a nurse lying drunk under the bed of her dead patient whose stimulants she had stolen.

No wonder is it that Bellevue gratefully remembers Dr. Gill Wylie's report of the new order of English nurses and his letter from Miss Nightingale, giving advice and instructions, and the rescue affected by the State Charities' Aid Association, and the advent of Sister Helen. But these events, which led to the establishment

of the Bellevue Hospital training school, in the spring of 1873, do not give it the priority that has been wrongfully claimed for it.

It is my good fortune distinctly to remember Dr. Dimock's arguments in favor of the new school she was about to open. In trying to persuade my mother to allow one of my older sisters to enter this school, she insisted that the vocation of nursing was entirely suitable for young women, for well educated women, and for those *having all home advantages*. Nursing, she claimed, was no longer to be a trade of last resort for middle-aged spinsters and impecunious widows.

Fifty years ago that was heresy. We can now see that it was true prophecy. But where did Dr. Dimock get these ideas?

As a medical student here, five years before, she, of course, knew the difficulties of the nursing situation in the hospital, and also the insistent public demand for a larger supply of first-class nurses. That she was intent upon the problem is proved by her visits to Kaiserswerth and to Florence Nightingale. She was seeking the light and she found it.

Twenty-five years afterwards, I found that Susan Dimock's enthusiastic plans and hopes were well remembered by Miss Nightingale. Dr. Dimock, indeed, was not the kind of person easily forgotten! And I doubt not that Miss Richards will tell us that her own cordial reception by Miss Nightingale was due at least in part to the fact that she was Dr. Dimock's former pupil, as well as the first American graduate nurse.

It is no mere coincidence in the Report of this Hospital for 1872, from which I have already quoted, that Dr. Lucy E. Sewall, one of the attending physicians, describes as "one of the pleasantest events of the year the return from Europe of Dr. Dimock to take charge of the Hospital." And very naturally, in the following paragraph, Dr. Sewall goes on to say that "we have now determined to use our increased facilities to the utmost and each year to send out a small band of trained nurses."

One of the very small sized objections that has been made against the claim of priority for this training school is the fact that in its first years it was under the immediate superintendence of a physician, and not of a trained nurse. This tries one's patience, especially if it comes from the Bellevue Hospital, where Linda Richards, after her training here, was immediately employed as head night nurse and then as chief nurse of the maternity department. No such objection was then made there, nor afterwards at the Massachusetts General and at the Boston City Hospitals, nor yet at the dozen other hospitals where Miss Richards subsequently was called to establish their training schools.

Trifling as this objection is, it nevertheless

gives occasion to discuss the tendency of the so-called leaders of the nursing profession toward absolute independence of the nursing from the medical profession.

This is dangerous doctrine. But, happily, no such nonsense has been current in this hospital. For here it could hardly be denied that women physicians, especially the many who previously have had regular nursing training, are not excellent nurses.

The fact is that many physicians always have been first-rate nurses, and still more of them are perfectly able to decide between the excellent nursing service sometimes obtainable for their patients and the wretchedly incompetent service they too often have to put up with. The converse is also true, that nurses are often able to distinguish between good and poor doctors. So it is in the army, where many of the officers have been, and might again be, good privates, and, at any rate, where they all can tell a good soldier from a poor one, and where also the soldiers can generally decide rightly which of their officers are capable and which are not. But this does not militate against the proper relationship between officers and privates, nor should it do so between nurses and the doctors they serve under.

The one important fact, and the corner stone of the foundation of modern medical and nursing joint service, is that nursing is only a subordinate branch of medical practice. The nurse, first, last, and all the while, is only the doctor's assistant. He is the captain and she is his executive officer. As his lieutenant, in his absence she, of course, acts for him.

The patient's interests both doctor and nurse must hold in common and always hold above their own interests. And this obligation requires perfect coöperation. Any antagonism, any disloyalty, between the doctor and the nurse harms them both, and also, and far more grievously, harms the patient.

This is only a paraphrase of Florence Nightingale's immortal teaching. And I repeat it today only to emphasize our gratitude to this hospital for its faithful adherence to these principles.

I am sure that I am voicing the judgment of my medical brethren of Massachusetts in testifying to the uniform excellence of the nurses who have had their training in the New England Hospital for Women and Children. They have proved themselves to be loyal and faithful. And, with very few exceptions, they have withstood the ultra-professional tendencies of modern nurses toward their fictitious independence of the medical profession.

To have thus maintained this high standard of nursing service is higher honor for this training school than even its American priority.

With our heartiest felicitations, on this its fiftieth birthday, and with our deep gratitude

to its distinguished founders and able managers, we join our most fervent good wishes for its continued success and ever-increasing glory.

Original Articles.

THE IMPROVEMENT OF HEALTH CONDITIONS IN RURAL COMMUNITIES.

BY M. VICTOR SAFFORD, M.D., BOSTON.

As has been suggested by the report of the Committee of the Massachusetts Medical Society "to investigate health problems in relation to the care of the sick in rural communities," the difficulty in securing satisfactory medical care in the rural communities is fundamentally economic in character. The physician avoids the rural communities because they do not give him an adequate return on the investment represented by the cost of a modern medical education.

There is no difficulty in securing competent physicians, and nurses and hospitals to provide up-to-date medical and surgical care for mining camps, rubber plantations or other industrial organizations in the remotest parts of the world whenever reasonable compensation for such services is forthcoming.

If a Massachusetts community is going to have facilities for up-to-date medical care, physicians, nurses and opportunities for dispensary or hospital treatment, somebody has got to pay for them. Furthermore, somebody has got to pay to educate the complaining communities to appreciate and make intelligent use of facilities for up-to-date medical care even if such facilities could be furnished free of cost. An occasional howl of disappointment when somebody finds himself unable to secure a doctor promptly to relieve pain or help to take care of a sick, burdensome dependent is not to be mistaken for an intelligent demand on the part of a community for proper medical care for that community. A large part of the so-called public health work in Boston or any other big city today is devoted to more or less unsatisfactory effort to induce people to make use of facilities for medical care which are available for them.

Medical care and educational work in these Massachusetts communities which are complaining of lack of doctors should be paid for by those who will most directly and most obviously benefit therefrom—by the people of the community itself if possible, but if not, by the people of the geographical district of which the community forms a part. If the people of the district are financially unable to provide proper medical care and medical education for themselves the first thing to do is to so improve the economic condition of the people—to so increase the average per capita purchasing capacity of

the people—that they as a whole may be able to do so. It is not to be expected that every individual will be able to contribute equally for this purpose. The minority in every community always have had to and always will have to look out for those who do not possess the capacity to properly look out for themselves or their interests, if the interests of the latter are to be looked out for at all.

We must not assume that the medical needs of these communities may be supplied by the State, the Medical Society or the Red Cross. An attempt to remedy a situation due fundamentally to unsatisfactory economic conditions, without attempting to improve these economic conditions, is not only economically wrong, but will not produce any permanent practical results in the way of the promotion of public health. Our experience in Porto Rico furnishes a good illustration of the uselessness of expenditures for medical care and health work without remedying underlying unsatisfactory economic conditions. In the Massachusetts rural medical problem there is even less excuse for State expenditures than in Porto Rico. Epidemic diseases, polluted soil or polluted water supplies are not an appreciable factor in producing unsatisfactory economic conditions in these complaining Massachusetts communities. In some Massachusetts communities, however, a factor in producing unsatisfactory economic conditions can be found to be the result of a failure on the part of our people and their legislators to discriminate between proper and improper subjects for the exercise of governmental powers in the way of legislation and taxation.

If the people and industries of Massachusetts are not the most heavily taxed of any State in the Union, as has been claimed, the State certainly stands among the first in this respect. The taxes collected in Massachusetts by State authority alone have increased from \$85,818,000 in 1910 to \$198,116,000 in 1920. This is exclusive of the taxes collected under the authority of the United States Government, which raised the total furnished in taxation in 1920 by the people of Massachusetts to \$457,012,000, or practically half a billion dollars. The people of Massachusetts paid in 1920 three and a half million dollars interest on a State debt which has been incurred in various justifiable and unjustifiable expenditures for the supposed promotion of public welfare. Rich States like New Jersey and Pennsylvania, with which Massachusetts must compete industrially, have comparatively small recently created State debts.* The people of Massachusetts are paying more and more every year to support an ever-increasing army of city, county and State officials or employees to promote their welfare.

*June 1, 1922, the State debt of New Jersey was \$17,116,000 and that of Pennsylvania was \$43,878,572. On December 1, 1921, the net State debt of Massachusetts was \$84,266,916.

Everybody contributes directly or indirectly to meet taxation and suffers in purchasing capacity in consequence thereof. This is why, when a man with some capital feels inclined to start a new enterprise in a Massachusetts community, he is likely to change his mind and invest his money in some other State where the risks to his investment from regulations and taxation seem less. A very large part of the taxes collected in this State are derived from the income from past savings of Massachusetts people which have been invested in enterprises elsewhere for this very reason.

What has been stated with respect to the futility of spending State funds in communities to improve a medical or health situation due to economic causes, applies equally to the expenditure for similar purposes of Red Cross funds, anti-tuberculosis society funds or funds of the Massachusetts Medical Society or any other private organization without in some way at the same time bringing about more satisfactory economic conditions.

There is an altogether too ready acceptance of claims of both official and non-official popular health or welfare organizations that decreases in infant mortality, in deaths from tuberculosis and other apparent improvements in health conditions are to be attributed to the activities of these agencies when such results are really due to improved economic conditions. Changes in economic conditions, lucrative employment, or unemployment, an increase or a decrease in the family purchasing capacity in a city, or a certain district of a city, is very quickly reflected in official statistics, as decreases or increases in morbidity and mortality. Other factors, of course, may enter to cause fluctuations in morbidity or mortality rates, but it is to be noted that both official and unofficial health agencies are usually silent with respect to their accomplishments except when morbidity or mortality is apparently decreasing.

SUMMARY.

We must realize that the problem of bringing about satisfactory rural medical care, which has been put up to the Massachusetts Medical Society, involves something more than devising new ways for a physician to give personal service to the public. The problem of proper medical care for rural communities in Massachusetts is fundamentally and chiefly an economic problem. In taking up this problem as it has, even to the extent of trying to point out a possible solution, the Massachusetts Medical Society is undertaking something which the Society was not designed to undertake.

The medical needs of these rural communities will not be satisfied by inducing competent physicians to practice in rural communities and by placing at the disposal of these physicians

and their patients such professional help and hospital facilities as members of the Society have it within their power to give. It is equally essential to the proper medical care of any community that provision be made for nursing service, for dental service, for health education, and in many instances for the means of securing household help or even a suitable diet. The money has got to come from somewhere to pay for these other essentials as well as to give a physician an income commensurate with the cost of a modern medical education. For reasons already stated it is believed that it is economically unsound and practically unwise to undertake to supply any of these essentials for proper medical care to a Massachusetts community unless the people who should be most directly interested—the people of the town, of a group of adjoining towns, of a part of a county or of a county—may be led to exhibit enough interest in their own welfare to undertake through local non-official civic organizations to so improve local economic conditions as to enable the people as a whole to provide and pay for their medical care, if at present without the resources to do so.

EMPYEMA. REPORT OF ONE HUNDRED CASES.*

BY DONALD S. ADAMS, M.D., WORCESTER, MASS.

From the Surgical Service of Memorial Hospital.

A study of the hospital records shows 100 cases of empyema from January, 1910, to January, 1920. There were 17 adults and 83 children. Of these 35 were females and 65 were males. Considering the age of the adult group, the youngest was 22, and the oldest 47, an average age of 30 years. Of those cases under 21 years of age the youngest was 3 months, and the oldest 18 years, an average of 5 years.

Ninety-seven of the 100 were frank empyemas and three were associated with lung abscess. A study of the predisposing factor or preëxisting illness revealed the fact that 94 had had pneumonia, three whooping cough and bronchopneumonia, and two of the lung abscess cases had inspired infected teeth during extraction under ether anesthesia. One adult presented a metastatic origin.

Seventy-four cases were admitted with empyema existing, and 26 developed the lesion on the medical side, having come in originally with pneumonia. The former group had been ill on the outside an average of 24 days, the longest 3 months, and the shortest 4 days, before being sent to the hospital.

Of the 97 frank empyemas the diagnosis was clinched in each case by the insertion of a

*Read before the Worcester District Medical Society, February 8, 1922.

needle. The lung abscess cases were diagnosed by the x-ray findings, history, physical findings, evidence of purulent expectoration, and in one case at autopsy. The treatment in all cases was operative.

It is of interest to note that, considering the entire group, 45% were operated upon within 24 hours after discovery of pus; 22% within 48 hours; 20% within 72 hours; 5% within 4 days; 8% within 10 days.

The last group were all adults and all made good recoveries. In those 26 cases that developed empyema under the care of our own staff, the average time between the discovery of pus and surgical interference was two days, the longest time was 5 days and the shortest was 24 hours. And again considering the 100 cases as a group, the average time between admission and operation was 6 days, the longest 29 days (one of the lung abscess cases) and the shortest time 24 hours.

In this series the lesion was equally divided between the two sides of the chest. Adult: Left 8, Right 9. Child: Left 44, Right 39.

Drainage was attained by either resection of rib or simple thoracotomy, there being a preponderance of the more radical procedure. Adult: Resection 10, Thoracotomy 7. Child: Resection 74, Thoracotomy 9.

Drainage was maintained by rubber tubes 82 times and by rubber spool 18 times. Post-operative irrigation of the chest was done in 28 of the 100 cases.

The following methods of securing anaesthesia were employed:

Ether, adult 7; child 54. Chloroform, adult 1; child 12. Local, adult 7; child 5. Ethyl chloride spray, adult 0; child 7. Chloroform and Ether, adult 2; child 5.

It is of interest in passing to note that the inadequate method of spraying with ethyl chloride was done 7 times, needless to say all in children. All were rib resections, all desperate cases, and all recovered.

Cultures of the pus either obtained at the time the chest was tapped or at the operation were reported in 92 of the cases:

(1) No growth, adult 2; child 2. (2) Streptococcus, adult 3; child 22. (3) Streptococcus and Staphylococcus, adult 0; child 1. (4) Pneumococcus, adult 4; child 41. (5) Diphtheroid, adult 1; child 0. (6) Staphylococcus, adult 3; child 7. (7) Pneumococcus and Streptococcus, adult 0; child 5. (8) Pneumococcus, Staphylococcus, Streptococcus, adult 0; child 1.

The average time of patients in hospital from time of admission to discharge was 45 days; from time of operation to time of discharge, 43 days. The longest stay was 240 days and the shortest 1 day.

From a clinical standpoint the leucocyte counts were interesting. Fortunately they were recorded in each case. The highest count noted was 66,000; the lowest 7,000, an average of

26,000. The point of greatest interest here, however, was the fact that in the patients that died, with one exception, in each instance the count was either above 40,000 or below 10,000.

The following complications were noted, all among children:

Scarlatina...2 cases.

Multiple abscesses of thighs and arms...2 cases. In one of them, a true septicaemic form, the same organism was found as originally taken from pleural cavity. In the other case a different organism was grown. Both patients recovered.

Diphtheria...2 cases.

Pneumonia developing on opposite side but undergoing satisfactory resolution...2 cases.

Double otitis media...1 case.

Osteomyelitis of ribs at operative site...1 case.

Acute nephritis...1 case.

Two cases of Empyema Necessitatis were noted in this series. Both children, two and five years of age; type of infection, streptococcus. They made satisfactory recoveries.

Twenty-four deaths noted in this series, all among children. Actual mortality 24%, child mortality 28.6%. The average age of the children that died was three years, the youngest four months, and the oldest ten years. Eleven of these were two years of age or under. Considering the total mortality the following facts were ascertained:

Type of operation: Resection 21, Thoracotomy 3.

Bacteriology: Streptococcus 10, Pneumococcus 9, Staphylococcus 1, Streptococcus and Staphylococcus 1.

Admitted with empyema: 20.

Developed empyema in hospital: 4.

Anaesthesia: Ether 15, Chloroform 4, Local 3, Chloroform-Ether 2.

Irrigated: 4.

Not irrigated: 20.

Operated within twenty-four hours after admission: 12.

Number admitted in moribund condition: 8.

But three postmortem findings can be recorded:

(1) Empyema and acute purulent pericarditis. Streptococci septicaemia.

(2) Empyema and abscess of lung on same side. Staphylococci septicaemia.

(3) Empyema and diffuse lobar pneumonia on opposite side. Pneumococci septicaemia.

Follow-ups obtained through letter or examining the patient personally: Children discharged alive, 59. Children accounted for, 20. Of these fourteen are alive and ten dead. Of the fourteen alive twelve were rib resections and two thoracotomies. Rib resections, 12 (alive and well at present time). Seeliosis and retraction, 2. Reoperation for rib necrosis, 1. Recurrence of pus at end of five years—same culture, 1. Well over period of six to eight years with-

out subsequent trouble, 8; Thoracotomies, 2 (alive and well at present time).

Of the six patients that are dead, two died within six weeks after discharge. These patients went out against advice and probably had poor care. One resection and one thoracotomy died of influenza. Two resections died of pneumonia five years after operation.

Adults discharged alive, 17. Adults accounted for, 12. One lung abscess case died one month after discharge. The other reports good health at the end of six years. Thoracotomies well over a period of two years, 3. Resections well over a period of six to nine years, 6. Resection died of bilateral lung tuberculosis, 1.

Again let us consider the entire group from an etiological standpoint. Ninety-seven per cent. were associated with pneumonia. Two lung abscess cases were found antemortem and one postmortem. Considering these in addition to an acute empyema following closely a pelvic abscess which was definitely a case of metastatic or blood-borne origin, we can see the relation to the etiological factors as enumerated by Wilensky¹.

(a.) Meta- or post-pneumonic.

(b.) Continuity from a neighboring perforating abscess, especially a lung abscess.

(c.) Metastases from a distant focus of infection. The first group he considers the commonest, which our series seems to substantiate.

The use of the needle was the means of arriving at a diagnosis in all of the frank cases. As Ladd and Cutler² point out, the needle is the dependable diagnostician. Morris,³ in discussing the exploratory puncture, shows that a massive pneumonia will very often simulate fluid in the pleural cavity. The tap will many times be dry, or if a drop of pus or fluid be gotten, the microscopic findings will be helpful in differentiation.

Operation was performed after discovery of pus in ninety-two per cent. of the cases within a period of four days. The remaining eight per cent. went as long as ten days before other means than simple aspiration were resorted to. This group was all adults and all recovered. When we consider this, together with the fact that one-half of the group of children that failed to recover were operated upon within twenty-four hours, we are more than convinced that early radical relief is unwise.

The average time in the hospital was forty-five days. From time of operation to time of discharge forty-three days, the type of operation having little apparent effect on the number of patient's hospital days. Diederich as quoted by Wynne⁴ reports forty postoperative days. The white blood counts presented a significant picture, in all probability merely coincidental. Apparently a very high leucocytosis, as well as a low one, meant one and the same thing, for it foretold a fatal issue in nearly every case. In

Wynne's⁴ series the highest count was 28,000, the lowest 7,000 and the average 17,000.

The complications offer nothing unusual. In fact they were few in number and in no case fatal. Morrison⁵ reports a case of empyema complicated by whooping cough with operation and recovery. Wilensky¹ gives a complete table of complications.

Our actual mortality in this series was 24%. The mortality among children 28.6%. As pointed out by Ladd and Cutler², as well as Hodge⁶, the age of the patient influences the mortality record. Thus the former noted 32% of deaths under two years of age, and 16% between the ages of two and twelve years. Nathan reported 78% mortality under two years and Dowd reported 25.6% between the ages of two and fourteen. Holt as quoted by Hodge⁶ noted 74% for first year, 59% for second year, and 13% for third year. According to our series: One year or under 55.5%, two years 45.8%, between two and fourteen years 21.8%, over fourteen no deaths. Thus, the younger the patient the greater the mortality.

The type of organism also influences the mortality. Holt noted 56% with pneumococcus, 79% with streptococcus and 50% with staphylococcus. Our group of cases showed pneumococcus 37.5% with streptococcus 41.1%, staphylococcus 4.1% and mixed infection 4.1%.

And lastly, the type of operation. All of our series received open treatment, but the more radical procedure gave the highest mortality—25%; thoracotomy resulted in 18.7%.

It is well to consider three things, as cited by Locke-Thomas and O'Hara⁷, before attempting to relieve a pyothorax. First the type of infection, second the general condition of the patient, and third the stage in convalescence. The patient with a broncho-pneumonia frequently shows effusion early in the course of the disease, and at a time when his general condition is poorest. Streptococci are usually found. Empyema is a later manifestation in lobar pneumonia, the patient having frequently reached a stage of early convalescence. The pneumococcus is the prevailing organism. Accepting these statements as facts, it is fair to assume that they are to be handled differently. The effusion containing streptococci is usually merely turbid at first, which indicates aspiration and contraindicates more radical measures. When frank pus finally appears and the physical as well as the clinical signs indicate underlying consolidations, together with a very ill patient, simple aspirations should be continued until it is apparent the drainage is inadequate or, as occurred in two of our recent cases, the formation of multiple abscesses and sinuses marking the point of insertion, an infection from within out, as evidenced by culture. It is then that the next least radical step should be tried, either the insertion of a catheter or simple thoracotomy. The patient with a pleura

infected by the pneumococcus or staphylococcus is usually found not to be suffering from an underlying pneumonia but from the toxic and pressure effects of an undrained cavity. This patient is benefited by an immediate catheter insertion or thoracotomy. The same may be said concerning a late streptococci process under which the lung condition has subsided.

This paper does not intend to argue in favor of either the closed or open method of treatment. The individual case must be studied and the operation chosen that will best meet the issue. For, after all, the object is the same,—to obtain drainage as completely as possible with the least taxation on the patient's physical resources and restore a sound chest in the shortest period of time.

No doubt a number of cases are cured by repeated aspirations alone. Stone reports 11% of three hundred and ten cases so cured, while Wynne succeeded in clearing up 3.5% by this least radical of all procedures. The closed method of treatment is applicable to the streptococci type of case. Especially is it of value in the desperate cases where both sides have to be drained simultaneously, as cited by Mozingo.⁸ The operation of choice, however, is simple thoracotomy with or without a valve flap. We should well agree with Hodge, who points out that rib resection should be saved for those cases that do not clear up with less radical means; where adhesions must be freed, or to clean up old sinuses and necrotic ribs.

But two forms of anaesthesia should be considered for these patients,—novocaine infiltration or gas-oxygen.

Whether one uses sterile water, saline, boric acid or, best of all, Dakin's solution as a form of irrigation, the results are more satisfactory than if the cavity is allowed to empty by overflow or lung expansion. One has only to see the clean wound of the former beside the soiled wound of the latter to convince himself. Whether one has the benefit of a perfectly titrated hypochlorite solution or must rely on that made up from the commercial product, in either case Dakin's solution should be the choice. Nothing has been suggested that so quickly liquefies necrotic tissue, and lessens toxic absorption. In our series twenty-four cases were chosen that recovered and of these twenty-one were irrigated while three were not. In choosing twenty-four cases that did not recover it was found that nineteen were not irrigated and five were. Thus the mortality of irrigated cases was 14%, whereas the unirrigated mortality was over 30%. It is fair to assume then, that the cleansing of the parts had something to do with the ultimate outcome.

And finally, let us not lose sight of the after-care. Proper diet, fresh air and sunshine mean a great deal. The blowing of bottles, soap bubbles, or inflatable toys, have their beneficial effect on lung expansion. The surgeon who insti-

gates the coöperation of the pediatrician or internist will be amply repaid by their judgment on the state of the underlying lung and by their suggestions during the postoperative stage.

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COMPARATIVE LUMINAL, BROMIDE, DIET, AND ELIMINATIVE TREATMENT OF EPILEPSY.

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THERE is much to be found in literature relative to the treatment of epilepsy. The individual so afflicted is severely handicapped for many reasons which are readily understood by those giving the subject consideration. He is generally considered to be in a class by himself in regard to associations, employment, treatment, and prognosis.

A group of fifty male patients varying in age from 19 years to 66 years, with an average age of 41.1 years, and duration of epilepsy ranging from three and one-half years to fifty-eight years preceding treatment, with an average of twenty years during which seizures have taken place in the thirty-seven cases, having reference in records to the time when seizures were first noted, was placed in the infirmary ward of the Grafton State Hospital, and drug and diet treatments were administered for six months, as follows:

GROUP 1. Ten patients received luminal or phenyl-ethyl-barbituric acid, grains one and one-half *twice* daily for three days, and then grains one and one-half *once* daily for the remainder of the time with laxatives or cathartics, other than magnesium sulphate, as necessary.

GROUP 2. Ten patients received luminal, same dosage as above, with magnesium sulphate, one ounce, twice weekly.

GROUP 3. Ten patients received triple bromide, grains fifteen (sodium bromide, gr. five, potassium bromide, gr. five, and ammonium bromide, gr. five) daily with laxatives or cathartics, other than magnesium sulphate, as necessary.

GROUP 4. Ten patients received triple bromide, same dosage as above, but with magnesium sulphate, one ounce, twice weekly as cathartic.

GROUP 5. Ten patients were kept on a regulated diet with laxatives or cathartics as necessary.

Many of the above patients, before treatment was begun, had been receiving infirmary care, as it was considered advisable, due to their mental or physical condition, or both.

It will be readily understood that the cases have been derived from among those of the more severely afflicted with the syndrome which goes to make up the condition termed epilepsy, as well as being a group of more nearly middle-aged patients.

During a period of twelve months, beginning April 17, 1921, including three months preceding and three months succeeding treatment, 2,502 seizures were recorded, with an average of 4.17 seizures of all types per month for each patient. The total number of seizures per month for each group was tabulated as follows:

In Group 1. April 17th to 30th, 1921, 60; May, 176; June, 91; July, 51; August, 63; September, 80; October, 68; November, 66; December, 46; January (1922), 26; February, 30; March, 18; April 1st to 17th, 18.

In Group 2. April 17th to 30th, 1921, 49; May, 72; June, 56; July, 35; August, 40; September, 56; October, 29; November, 28; December, 33; January (1922), 32; February, 33; March, 31; April 1st to 17th, 25.

In Group 3. April 17th to 30th, 1921, 22; May, 48; June, 44; July, 39; August, 31; September, 31; October, 25; November, 21; December, 21; January (1922), 28; February, 19; March, 21; April 1st to 17th, 10.

In Group 4. April 17th to 30th, 1921, 32; May, 61; June, 43; July, 54; August, 37; September, 31; October, 34; November, 40; December, 23; January (1922), 28; February, 19; March, 21; April 1st to 17th, 10.

Group 5. In this last group they received a regulated diet of food material as outlined per capita, forming the usual balanced ration. In addition to this, elimination was afforded by the use of laxatives or cathartics when necessary. The total seizures per month recorded for this group were as follows:

April 17th to 30th, 1921, 22; May, 42; June, 32; July, 22; August, 37; September, 33; October, 33; November, 30; December, 41; January (1922), 27; February, 32; March, 24; April 1st to 17th, 3.

Using the three months' record of seizures previous to treatment as a starting point, it was found that the seizures varied as follows on a percentage basis:

GROUP 1: 351 seizures. The treatment period of six months, 361 seizures, or 50.14%. Post-treatment observation period of three months, 81 seizures, or 23%.

GROUP 2: 201 seizures. Period of treatment,

207 seizures, or 51.49%. Post-treatment period, 111 seizures, or 55.2%.

GROUP 3: 133 seizures. Period of treatment, 178 seizures, or 67.4%. Observation period, 88 seizures, or 66.16%.

GROUP 4: 156 seizures. Period of treatment, 213 seizures, or 68.26%. Post-treatment period, 64 seizures, or 41%.

GROUP 5: 102 seizures. Period of treatment, 199 seizures, or 97.5%. Post-treatment period, 77 seizures, or 75.5%.

All groups showed a few pounds gain in weight, except Group 4, in which there was a shortage of five pounds for the group.

Age of onset was given as infancy in two cases; childhood in three cases; two to five years in five cases; five to ten years in four cases; ten to seventeen years in ten cases; seventeen to twenty-five years in five cases; twenty-five to thirty years in two cases; thirty to forty years in three cases; forty to fifty years in four cases; fifty to sixty years in one case. The remainder were unknown or indefinite.

ETIOLOGICAL FACTORS.

Eating cherries, 1; measles, 1; whooping cough, 1; typhoid fever, 1; alcohol, 4. In the organic group, head injury was given as cause of three cases, and four cases hemiplegic. In eleven cases the patient was primarily mentally deficient; history of epilepsy in the family in six cases, insanity in three cases. One case of mental deficiency in family. Other cases unknown or indefinite. There are two diagnoses of epileptic psychosis, clouded states, while the remainder are given as epilepsy with deterioration.

Luminal Case Report. C. H., a negro, male, age 36 years, with history of grand mal attacks of epilepsy since seven years of age, of Group 2, appeared to take the treatment fairly well, with a lessened number of seizures, and some indications of drowsiness, with no complaints of ill feeling, was found, forty-one days after treatment was instituted, to have an eruption on the skin which was more pronounced on face, neck and upper extremities, after which luminal treatment was discontinued. Temperature the next day was 99.6°, pulse 82, respiration 20. This eruption, which resembled that of measles at first, was discrete and papular, surrounded by reddish areola and rather firm, spread over the entire body, and during the next few days it receded and disappeared. Also, the temperature became normal, and it was noted that he was in an improved condition. The eruption began to recur about fourteen days following the first appearance. There was evidently itching, though as a result of patient's limited mental capacity, little definite information could be obtained subjectively. The eyelids became edematous and conjunctivitis developed. The mucous membranes of the mouth and throat were

reddened, tonsils became swollen; the tongue presented a dry appearance, somewhat swollen, and acute bronchitis symptoms were present. There was no diarrhea or localized tenderness in abdomen. The urine was lightly colored, with acid reaction, specific gravity 1.020, trace of albumen, no sugar. Microscopic examination of urinary sediment revealed a few red blood cells and leucocytes, besides many epithelial cells and a few granular casts. The temperature never went higher than 102.6°, nor pulse over 124. The respirations were generally around 20 and 30 at the greatest. The condition became worse. The spots which were at first separated, more noticeably on the trunk, became confluent. The eruption afterwards took the form of a desquamating eczema, and later had a tendency to ulcerations, with pustular formation. Patient died twenty-seven days after first appearance of symptoms.

Bromide Case Report. Case of P. D., of Group 3. A white male, 59 years of age, with history of grand mal attacks of epilepsy of an indefinite duration, and who has been a patient in hospital during the last six years; fairly good physical condition; mentally deteriorated. He declined rapidly during treatment. There was evidence of motor depressant effect as well as lessening of activity of intellectual centers. Heart action affected. There was greater tendency to coldness of extremities, and treatment was discontinued at the end of fifteen days.

Diet Case. Case of A. J., of Group 5. Died during a seizure shortly after treatment was completed, and before observation time had expired.

Bromide Case. Two cases, A. G., and F. W., of Group 3. Unreliable, as seizures had been rarely noted, and there was none recorded during the entire time.

Luminal Idiopathic Case. Case of A. P., of Group 1. Was especially happy, and so he expressed it during treatment. He felt sure he was much improved, and wrote in glowing terms of the treatment which he was receiving. The seizures were fewer in number, he gained in weight, and general condition improved. He was more inclined to be helpful when possible. When treatment was discontinued, the seizures became more severe, his mental condition became more disturbed, making it necessary to remove him from the infirmary to a more suitable ward. This tendency is noted, to a lesser degree, in a number of other patients following luminal treatment.

Some of the luminal treatment patients appeared depressed and less inclined to mental or physical exertion, which also occurred in a case of bromide administration. In other cases of patients who were delusional or hallucinated the symptoms were enhanced, though it was generally recognized that as a whole the patients did not exhibit disturbed mental states to the degree

which occurred previous to treatment. The tendency to violence was not so great.

Bromide cases continued much the same during the post-treatment period as during the treatment period in regard to drug effect. Bromism was found in the greater number of patients following treatment, and in a few cases dementia, which was present at the beginning of treatment, either increased or a condition was produced which closely resembled it.

According to Grinker, *Journal A. M. A.*, August 28, 1920, he has tested one hundred cases of epilepsy with luminal, and some of his cases have been free from attacks for a period of from three to four years, others from one to two years, and still others, who constitute the large majority of cases, for a number of months. According to a recent communication from him, another article is to appear soon in regard to further experiences with luminal in epilepsy.

CONCLUSIONS.

Luminal has a place as a therapeutic measure in the treatment of the epilepsies, and when taken in the doses used, does not produce the mental torpor manifestations which occur in the case of administration of bromides, and in many cases it is more beneficial; yet, it should be used with greater care and with selective cases, because of toxic effects which may be attributed to it. Neither drug appears to be habit-forming.

In cases of both luminal and the bromides, active treatment periods completed, the seizures were more nearly controlled with the former drug. From the standpoint of numbers and oftentimes in regard to severity, cases of idiopathic origin were the more responsive. Diet and elimination treatment group obtains last place on the list, but are very important, either alone or in conjunction with other recognized methods of treatment. No particular laxative or cathartic appeared superior to others during this period, though in the post-treatment observation period Groups 1 and 4 contained the lowest percentage of seizures of the first four groups. Special care to avoid auto-intoxication in Group 5 played a very important rôle in the reduction of seizures obtained there. Beneficial effects were noted in all groups during post-treatment observation period.

FIBROMA AND SARCOMA OF THE OVARY. REPORT OF TWO UNUSUAL OVARIAN TUMORS.

BY JOE VINCENT MEIGS, M.D., BOSTON.

This paper is written for the purpose of reporting two unusual ovarian tumors removed from patients at the Free Hospital for Women in Brookline, Mass. The first case revealed a combination of fibroma and fibro-sarcoma in one

tumor, with small fibromata of the other ovary. The second case combined a fibroma and malignant papillary cyst-adenoma with a malignant papillary cyst-adenoma of the other ovary.

In the literature that has been reviewed for this paper there is no actual case reported of either of these types of mixed tumors of the ovary. Cullen²³ reported a case of carcino-sarcoma of the ovary, the sarcoma probably developing from the stroma of the adeno-carcinoma, although which was primary could not positively be determined. Forssner²² reported two cases of carcino-sarcoma of the ovary. Before presenting the two cases a brief résumé of the literature on fibroma and on sarcoma of the ovary will be given.

The origin of fibromata of the ovary is uncertain, according to Aschoff. The points of probable origin follow:—(1.) From an inflammatory exudate on the surface of the ovary. (2.) From a corpus albicans. (3.) From a corpus luteum. (4.) From the stroma of the ovary. (5.) From the capsule of the ovary.

Fibroma must develop from connective tissue and Hellman¹⁵ states that "connective tissue can be found in the stroma, corpus luteum, corpus fibrosa, in the organized blood clots and in the capsule." These tumors probably develop from one of the above sites; some from one site and some from another.

They grow in three forms: The diffuse, in which the whole ovary is involved; the circumscribed, in which only a portion of the ovary is involved; and the pedunculated type, which is very rare.

Fibromata of the ovary are not very common, although probably more so than most writers state, the usual estimate being that they form two per cent. of ovarian tumors. Howell, in "The American System of Surgery," states that they are not as rare as might be inferred from the literature. Martin-Jung-Schmitz²² states that "fibromata of the ovary are relatively frequent." Petersen,²⁴ writing in 1902, says that "the work of Doran-Briggs-Coe, and others, has shown conclusively that the disease, while rare, is common enough to necessitate consideration from the standpoint of diagnosis." He was, however, in 1902, able to collect only 82 cases in the American literature. Fullerton¹³ believes that pure fibromata are very rare. Clark and Gabe,⁶ whose article is the latest upon this subject, state that "ovarian fibromata are sufficiently rare to warrant the report of all carefully studied cases."

Fibromata of the ovary are not common in young people. They usually occur in women at about the time of the menopause.¹⁵ One case of a fibroma in a girl of 17 was considered unusual. Coe, however, considers them the product of youthful and active ovaries, not of senile. The age limits given are 17 to 72.²⁸

The symptoms are not definite, the most common being pain due to pressure from the tumor,

and ascites. If the tumor has reached a large size it may be noticeable to the patient as an increase in the size of the abdomen. Loss of weight is noticed in some cases, especially those with ascites. Coe⁸ reported the interesting case of a woman whose abdomen, at operation, was found to be full of fluid and was closed because a malignant tumor was thought to be present. The patient was tapped twice later, and finally was operated upon again, when a fibroma was removed. This patient had typical symptoms of malignancy, but was cured upon removal of a fibroma of the ovary. Numerous cases objectively show ascites, the percentages being from 5 per cent. (Hellman) to 40 per cent. (Petersen).

The tumors vary in size from 1 cm. or less to the size of a man's head or larger. They are usually freely movable and non-adherent. These tumors usually are unilateral, although bilateral fibromata may occur. Ascites is present in most of the cases, although it is not always present. The cause of this ascites is not known, and, as Coe⁸ says, "adhesions are rare and the tumors very slow growing and non-irritating." Therefore the question of ascites is a puzzle." Fullerton¹³ believes the presence of ascites is the reason for the non-adherence of these tumors. The cause of ascites is variously stated as follows: It may be due to a chemical action, to a mechanical, to a hyperemia, or to a secretion from a degenerating tumor.

The treatment is simple excision of the tumor and ovarian tissue. The prognosis is excellent, for probably very few of these tumors become sarcomatous. In fact, no definite case was found reported in the references studied.

Sarcoma of the ovary is said to be more common than fibroma, the percentage given being 5 per cent. of all ovarian tumors. These tumors originate, as do fibroma, from any of the areas of the ovary containing connective tissue. Reel²⁸ states that he found a specimen of sarcoma of the ovary which apparently took its origin from a tumor of this type (fibroma). This is the only suggestion of a case similar to Case No. 10026, reported below. Graves¹⁴ states that "sarcomata of the ovary are very rare tumors. They may originate as a malignant growth or they may represent a degeneration of a fibroma." Johnson¹⁶ feels "that fibromata of the ovary are more subject to malignant and other forms of degeneration than are fibroid tumors of the uterus." From these opinions it can be inferred that probably some of the fibro-sarcomata of spindle-cell type develop from a fibroma of the ovary. Case No. 10026 seems to be an incidence of this type of case in which the sarcoma in all probability developed from the fibroma. Most writers believe sarcoma of the ovary to be bilateral, and that ascites is a most usual occurrence.

There are two main types of sarcoma of the ovary which probably do not develop from the

same type cell. (Myxo-sarcoma, chondro-sarcoma, etc., are not considered in this paper.) One occurs in extreme youth, the other much later in life. In child life before the age of five 50 per cent. of all sarcoma of the ovary occur,³¹ and 50 per cent. of ovarian tumors before the age of five are sarcoma.³² These tumors are usually bilateral, soft, spongy, and of the round cell type of sarcoma. The type cell is not known. According to Ewing,³³ "it seems probable that some of the tumors with indifferent round cells are to be interpreted as one-sided developments of teratoma." Further, "the round cell sarcoma of the ovary is an ill-defined and rare form of malignant tumor which occurs chiefly in young subjects or children and proves rapidly fatal." They probably can be compared to the embryoma of the testicle. In adults the type of tumor is usually the hard, fibrous, fibro-sarcoma of the spindle-cell type. Porter³⁴ believes that "fibro-sarcoma of the ovary is less malignant than the other forms of sarcoma of the ovary." The two types are probably quite distinct and separate.

The treatment is hysterectomy with bilateral salpingo-oophorectomy, because this type of tumor is often bilateral, and also because it may metastasize to the uterus. The prognosis is not good.

The two cases reported below are interesting because they combine fibroma with two different types of tumors, a fibro-sarcoma in one, and a malignant papillary cyst-adenoma in the other. The opposite ovaries were involved in both cases, the first containing small fibromata, and the other a malignant papillary cyst-adenoma.

The two cases follow.—history, examination, operative findings, and pathological report. The stains used to prove the tumors actual fibromata were hematoxylin-eosin and Van Gieson's picro-fuchsin.

CASE 1.—13719-10026. Mrs. M. O., aged 53; children, one; miscarriages, two. Since October, 1921, the patient has noticed a mass in the left lower abdomen, accompanied at times by distention. This mass has not increased much in size, but there has been a loss of weight. The menopause occurred two years previously. In 1912 plastic operations were performed at the Free Hospital for Women.

January 12, 1922.—Examination reveals a movable tumor in the abdomen, and a question of fluid and malignancy.

January 19, 1922.—Operation by Dr. Graves: Supra-vaginal hysterectomy, midline incision. A large tumor is found, suggesting an ovarian cyst. Abdomen is full of blood-tinged fluid. No nodules are felt in the liver. Pedicle of the cyst of the left ovary is clamped and cyst removed, as well as the uterus with the other ovary and tube.

March 23, 1922.—Examination: Patient feels well and is gaining weight. Vaginal examina-



PATH. No. 10026.—This photograph shows a small fibroma in the upper left-hand corner of the tumor mass. Its tissue is harder and more fibrous than the rest of the tumor, which is soft and friable. The tumor measures 15x12x12 cm.

tion shows slight resistance in the right side. No glands felt.

Macroscopical Examination: Specimen consists of a uterus with both tubes and ovaries. One tube and ovary separate. The left ovary is a tumor measuring 15x12x12 cm. This tumor consists of two parts, one a definite fibroma, which measures 3x3x4 cm., with two smaller tumors of the same type on its surface. The other part consists of soft, fibrous material that is of a fish flesh texture. At one end there has been some necrosis, and the tumor here is soft and bluish. The smaller part (fibroma) is not encapsulated. The tube is spread out over the surface of this tumor. The right tube and ovary are attached to the uterus. The tube is not remarkable. The ovary is covered with small nodules and measures 3x5x2 cm. Uterus contains multiple fibroids and measures 5x7 cm. Endometrium is 2 mm. thick, smooth except for one small polyp.

Microscopical Examination: The polyp is a polyp of the endometrium. The tubes are normal. Endometrium is atrophying. The piece of tissue from the probable fibroma of the ovary shows very compact connective tissue with but few nuclei. The cells and fibrils are very compact, with bundles which seem to run in many directions. There is a great preponderance of collagen fibrils. There are no mitotic figures to be seen. This tumor is a fibroma. Sections of the softer tumor show a tissue rich in nuclei and in nuclear figures. There are many mitoses present. There is not a thick deposit of connective tissue fibrils, and the nuclei are the most evident structure in the tumor. In one area there is seen the junction of the fibroma and the fibro-sarcoma. There is an abrupt change between the two types of tissue. A definite line

can be followed for the whole length of the section, and in no part is there confusion as to which is fibroma and which is sarcoma. There is no capsule seen, the two different tumors being intimately joined together but being totally different at their junction. The other ovary shows small areas of fibrous tissue, growing on the surface, that give the impression of small early fibromata, and are totally different from normal ovarian tissue.

Diagnosis: Endometrial polyp; atrophying endometrium; normal tubes, multiple leiomyoma of the uterus; small fibromata of the right ovary; fibroma of the left ovary; fibro-sarcoma of the left ovary.

CASE 2.—No. 13862-10210. Mrs. I. K., aged 55; children, five; miscarriages, none. For about ten years the patient has been aware of a slight tenderness on pressure in the left lower part of the abdomen. About two months ago this tenderness spread to the opposite side of the abdomen. Menopause occurred eight months previous to entry.

April 3, 1922.—Examination reveals a large, somewhat mobile, abdominal tumor; genital atrophy; and a lacerated cervix which is nearly taken up.



PATH. No. 10210.—Fibroma and malignant papillary cyst-adenoma of the ovary. This photograph shows a fibroma of the ovary being invaded by a malignant papillary cyst-adenoma. The tumor measures 21x14x10 cm.

April 5, 1922.—Operation by Dr. Graves: Supra-vaginal hysterectomy; appendectomy. Midline incision. A large, hard, white tumor of the right ovary is found, with small cystic masses on its anterior surface, which is adherent to the rectum, small intestines, and the surrounding tissues. On the left is an inky-blue colored cyst of the left ovary which is only slightly adherent. The uterus is small and



PATH. No. 10210.—This photograph shows the outside of the combined fibroma and malignant papillary cyst-adenoma.

normal in appearance. Gali-bladder and kidneys feel normal. Adhesions were freed and a routine supra-vaginal hysterectomy performed.

Macroscopical Examination: Specimen consists of a uterus with both tubes and ovaries attached, and the appendix. The uterus measures 7x3x2.5 cm. The uterine cavity is 4 cm. long. Endometrium is 2 mm. thick. There is a small nodule in the posterior wall of the uterus at the junction of the fundus and the cervix. The right ovary presents a tumor which measures 21x14x10 cm. The tube is attached to the tumor and is spread out over its surface. The tumor is composed of a large, fibrous mass that is nearly divided by a growth of many small cystic masses filled with a clear fluid and containing masses of a papillary growth. The surface of the mass is covered with these small cystic growths, that seem everywhere to be invading the solid tumor. The other ovary is composed of a cyst, measuring 11x6x4 cm., which is filled with the same sort of material as is contained in the cysts of the other ovary. There is no solid fibrous tumor structure in this ovary. The left tube is a hydrosalpinx measuring 8x4 cm. In some areas in both tumors the papillary growth has grown outside the cysts and is spread over the surface of the main tumor, and in places is invading it. The appendix is 3 cm. long and appears to be normal.

Microscopical Examination: Atrophied endometrium. Normal appendix. The cystic tumor of the ovary is a malignant papillary cyst-adenoma. The epithelium in places is growing rapidly and numerous mitotic figures are present. In one slide the growth is seen invading the solid tumor. The epithelium is cuboidal and the cyst is of the serous type. The solid tumor is made up of fibrous tissue running in bands. There is a great quantity of collagen

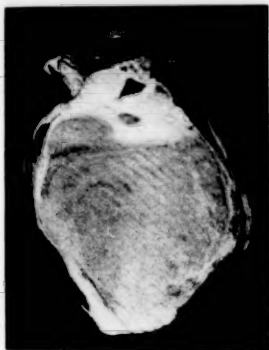


PLATE No. 9928.—This photograph shows a fibroma of the ovary with normal ovarian tissue spread over its upper surface. There are a few small follicular cysts in the ovarian tissue. The tumor measures 10x10x9 cm.

fibrils, and the nuclei are not numerous. In some areas the connective tissue is spread apart by edema. This tumor is a fibroma of the ovary. The small nodule found on the back of the uterus on section shows a great many gland structures and papillary projections. The epithelium in areas is cuboidal, and in other places it is heaped up. This tumor contains many mitotic figures and is probably a metastatic nodule from the malignant cyst.

Diagnosis: Atrophied endometrium; normal appendix; hydrosalpinx, bilateral; malignant papillary cyst-adenoma with epithelium of the serous type, bilateral; metastatic adeno-carcinoma; fibroma of the ovary.

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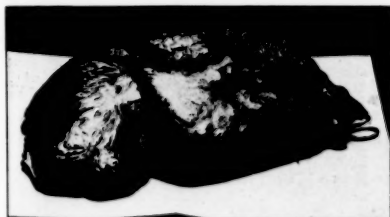
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A LIPOMA WEIGHING TWO AND ONE-HALF KILOGRAMS, TAKEN FROM THE INNER ASPECT OF THE RIGHT ARM.

BY A. DALE KIRK, M.D., WORCESTER STATE HOSPITAL.

THIS case, while perhaps not exactly an exceedingly rare one, and even though it did not present much difficulty in diagnosis, is nevertheless very interesting, and, it seems to me, well worth reporting, because of the unusual size of the tumor and its unusual location.

The patient, F. S., shown in the accompanying photograph, was admitted to the Worcester State Hospital, June 23, 1922. From him the following story was obtained. He is an old man, seventy-nine years of age, who about thirty years ago fell and sustained some injury to his shoulder. He did not know the exact nature of this injury, or if any bones were broken. About



Tumor after removal.

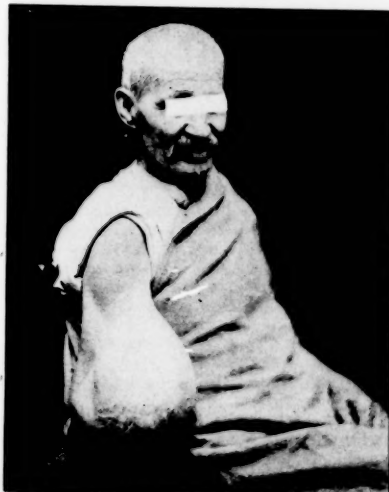
seven years ago a small lump appeared in the inner aspect of his arm. This small tumor did not bother him any, and he did not pay much attention to it. He went about his work as a contractor, and says that it did not bother him in any way. Its growth was very insidious, and he claims that it did not begin to grow rapidly until about two years ago, when he had to stop work, and then it began to get larger quite rapidly. All this time he has had this tumor under his arm, he claims that it has never bothered him, except as a mechanical hindrance, and he was not at all enthusiastic about having it removed.

Upon examination we find a large, oval-shaped mass, hanging from the inner surface of this man's arm. It was rather soft, and semi-fluctuating, so that when the patient told us that a doctor had previously removed fluid from it,



Roentgenogram of arm.

we were almost ready to believe him, and were trying to figure out how a man of his age could be possessed of a cyst under his arm; and if a cyst, from what did it originate? However, on closer examination the tumor was found not to be perfectly oval in shape, but to be somewhat lobulated. It did not seem to be adherent to the deeper structures below, and it was not adherent to the skin above, although when the tumor was moved the skin above it would become somewhat wrinkled. It was quite freely movable and could be moved about on his arm quite easily. It was not in the least infiltrated



Patient, showing tumor of right arm.

and the skin at its point of attachment could be almost approximated with that on the other side. To be absolutely sure, however, that it was not a malignant affair, an x-ray was taken of the arm to rule out the possibility of any involvement of the bone, which might have been excited by the old injury. We were fairly certain, however, that it could not be sarcomatous or carcinomatous, because of the consistency of the mass, and the fact that the patient was in such good general condition.

Having satisfied ourselves that this was benign, the differential diagnosis must rest between one of three things:

1. Lipoma.

In favor of this we have a large, oval, rather lobulated, semi-fluctuating mass, which grew very insidiously and has never caused the patient any pain, or even discomfort outside of the fact that being so large it became a mechanical hindrance to him. It was subcutaneous and not fastened tightly to the skin or to the deeper tissues beneath.

2. Fibroma of the soft type. (Fibroma Molle.)

There was nothing which could really enable us to rule this out—although if it were a fibroma we would be inclined to expect it to appear more suddenly than this tumor mass did. Also the fact that it was somewhat lobulated would be more in favor of a lipoma, but would not by any means rule out a fibroma.

3. Myxoma.

These generally occur as rounded tumor masses, and from the characteristics of the tumor itself I do not think it could be differentiated from either a fibroma or a lipoma. These tumors sometimes originate in the sheath of nerve trunks, and if this was the case this would be an excellent location to expect such a growth. All of these conditions were considered and before operation opinion was still divided as to whether it was a lipoma or a fibroma.

At operation the mass was easily enucleated by Dr. Curran, and the tumor shown in the accompanying photograph was removed. It was found to weigh 2.5 kilograms, and measured 28x19x11 centimeters. The pathological examination showed it to be a typical lipoma.

The patient's arm has rapidly healed up and he is now very much elated that he is free from this cumbersome mass.

A NEW METHOD FOR THE ESTIMATION OF PEPTIC ACTIVITY OF GASTRIC CONTENTS, SUITABLE TO CLINICAL APPLICATION.

BY C. W. MCCLURE, M.D., BOSTON, AND
P. L. E. SCHABACKER, BOSTON.

[From the Evans Memorial.]

THE present communication is the description of a practical method for the estimation of pep-

tic activity of gastric contents, conforming to the general principles of enzyme action as at present understood; and of the application of the method to the determination of peptic activity of the stomach contents of human beings.

Up to the present the determination of relative quantities (concentration) of pepsin in stomach contents, as ascertained by the estimation of peptic activity, has been of very little assistance in explaining gastrointestinal symptomatology. One of the several reasons for this lies in the fact that methods for estimating peptic activity in gastric contents have given such variable results that only most inaccurate knowledge of the concentration of pepsin present could be obtained. The variability in results is due to the fact that the methods have not conformed to the general principles resulting from the application of physical chemical concepts to enzyme action. Obviously, a method conforming to these principles is necessarily one of the first steps in determining whether possible abnormalities in peptic activity play a rôle in the production of gastrointestinal symptomatology, and this is the reason for the present study.

The reagents required and the technic of procedure of the new method are as follows:

Great care was exercised in the preparation of the buffer solution, as it was felt that the uniformity and purity of this factor determine in large measure the course of all enzymic digestions.

A stock solution of hydrochloric acid was prepared by distilling a 20 per cent. pure acid in quartz, collecting the middle third of the middle third, and diluting the distillate to the desired strength (about half normal) with freshly distilled carbon dioxide free water. The strength of the acid was determined by exact gravimetric analysis as silver chloride.

Sodium hydroxide was prepared free from carbonate in a manner recently described,¹ and which may be summarized as follows: Forty-five grams of initially very poor sodium hydroxide were dissolved in 500 c.c. of freshly distilled water, the carbonate content determined by titration at 0° C., precipitated as carbonate with an excess of pure barium hydroxide, and the excess of the latter, after careful gravimetric analysis, removed as the sulphate with the calculated amount of pure sodium sulphate. The strength of the alkali was determined by titrating with the acid as described above, using weight-burettes and methyl red as the indicator. It was stored in paraffin-lined bottles and protected against carbon dioxide contamination by a soda lime tower.

Crystallized citric acid of the highest purity was next dissolved in carbon dioxide free water, the resulting solution being slightly in excess of half molal. Exact analyses of its strength were made with the sodium hydroxide described above, again using a weight-burette for the lat-

ter. Into a one-liter graduated flask was measured exactly enough of the citric acid to give 52.52 grams of the original solid. To this was added by weight enough of the sodium hydroxide to produce two-thirds neutralization of the acid. The volume was then made up to one liter, giving a fourth molal solution. This was used as the stock solution, keeping it in a paraffin-lined bottle and diluting with carbon dioxide free water to the final concentration of M/16 disodium monohydrogen citrate. To all solutions containing the sodium citrate thymol crystals were added to prevent the growth of molds.

N/10 HCl is made by diluting the acid described in the foregoing section to proper concentration, and titrating the strength with the standard NaOH also described, using weighing burettes and methyl red as the indicator.

The sodium citrate-hydrochloric acid mixture is prepared by pipetting 300 c.c. of the M/16 sodium citrate solution into a liter volumetric flask, rinsed with N/O HCl, and making up to the mark with N/10 HCl.

Edestin solution: One (1) gram of edestin,* weighed within an accuracy of 1 per cent., is placed in a mortar. The edestin powder is then titrated with a few c.c. of the sodium citrate-hydrochloric acid mixture to make a paste; by rapid trituration and slow addition of the sodium citrate-hydrochloric acid mixture the edestin powder can be kept in a finely divided state, which will allow it to go into solution readily. A total volume of 100 c.c. of the acid mixture is added from an ordinary graduated measuring cylinder. A small amount of residue will not dissolve, and is readily gotten rid of by centrifugalization and decantation of the supernatant fluid.

Twenty-five per cent. metaphosphoric acid solution: The preparations of metaphosphoric acid usually obtained in the market should be fused in a graphite mortar until the white fumes of phosphorus pentoxide begin to appear. The fused material can be cooled conveniently by pouring on a clean pie-pan floating on cold water. Metaphosphoric acid so fused will remain a potent protein precipitant if kept in tightly stoppered bottles.

The 25 per cent. solution can be made quickly by triturating the desired amount of metaphosphoric acid and water in a mortar.

Digestion mixture and Nessler's solution are prepared as directed by Folin and Wu,² the standard ammonium sulphate solution as directed by Folin and Denis.³

TECHNIC.

Centrifugalize or filter a small portion of the gastric contents and place one (1) c.c. of the clear fluid obtained in a 100 c.c. volumetric flask, then fill up to the mark with the sodium citrate-hydrochloric acid mixture.

*The edestin preparation was furnished through the courtesy of the Arlington Chemical Company, Yonkers, N. Y. The authors take pleasure in acknowledging indebtedness for their cooperation.

Pipette 9 c.c. of the 1 per cent. edestin solution into test tubes (100 mm. x 10 mm.) and place in a water bath at 40° C. for five minutes. Then add one (1) c.c. of the diluted gastric contents to each tube, shake and replace in the water bath for a period of 60 minutes. At the end of this time remove the tubes and immediately add 2 c.c. of the 25 per cent. metaphosphoric acid solution, shake violently, allow to stand 60 seconds and filter, using dry filter paper. The filtrate should be perfectly clear. One (1) c.c. of the filtrate is Kjeldahl according to the micromethod of Folin and Wu,² in the following manner: To each of two of the large Pyrex tubes, recommended by Folin and Wu, one (1) c.c. of the filtrate is added. Then to one of the tubes one (1) c.c. of the sulphuric-phosphoric acid mixture is added and 2 c.c. to the other tube. Digestion is carried out as described by Folin and Wu.² In brief,⁴ this consists in boiling off the water and, when the white fumes of sulphuric acid begin to develop, the mouth of the tube is covered by inverting a small Erlenmeyer flask into its mouth. Digestion is continued for from 30 to 60 seconds after the last trace of brown color has disappeared. The tube is then allowed to cool for 60 to 70 seconds, from 5 to 10 c.c. of water are quickly added and the contents of the tube cooled. The contents of the tube, to which the 2 c.c. of the acid mixture were added, are transferred quantitatively to a 100 c.c. volumetric flask and the total volume made up to about 60 c.c. with water. Then 30 c.c. of Nessler's solution are added and the flask filled up to the mark with water. The nesslerized solution is centrifugalized to get rid of the sediment* and compared with standard ammonium sulphate solutions usually containing 0.25 and 0.5 mgm. nitrogen. These are prepared by placing 2 c.c. of the acid mixture in a 100 c.c. volumetric flask, adding 5 or 10 c.c. of standard ammonium sulphate solution containing 0.05 mgm. per c.c., about 60 c.c. of water, 30 c.c. of Nessler's solution and making up to the mark with water. If sufficient color does not develop in the flask containing the Kjeldahl filtrate, then the other tube is to be nesslerized. To this tube add water up to the 35 c.c. mark, 15 c.c. of Nessler's solution, and, if necessary, centrifugalize to get rid of any sediment. While this procedure practically doubles the work of experiment, it gives an elasticity to the method which experience has shown to be essential.

The total number of milligrams of nitrogen found in the filtrate, after the metaphosphoric acid precipitation, is taken as an index of peptic activity. Using this index, the peptic activity of gastric contents obtained from a small number of normal young men, has varied between 3.6 mgms. and 5 mgms. These gastric contents

were obtained an hour after the ingestion of the Ewald test-breakfast.

DISCUSSION.

Methods representative of those devised in the past for the estimation of the peptic activity of gastric contents may be divided into the following classes:

1. Those in which gastric contents act on a substratum in the form of a solid mass placed in them or in a dilute HCl solution to which gastric contents are added: To this class belong the methods of Mett and Grützner. The Mett method³ is the well-known one of measuring the lengths of coagulated egg albumin in capillary glass tubes, before and after placing them in a solution containing pepsin. In the method of Grützner² pepsin is allowed to act on fibrin which has been infiltrated with carmin. The amount of carmin liberated is determined colorimetrically and is used as an index to peptic activity.

2. Those in which gastric contents act on a flocculent suspension of edestin, in dilute solution of HCl: The complete disappearance of the precipitate is taken as the end-point of digestion. To this class belong the methods of Farrington, Lewis and Brown,⁶ and of Brewster.⁷

3. Those in which gastric contents act on some protein dissolved in dilute HCl: In the method of Fuld,⁵ edestin is dissolved in diluted HCl, and mixed with an equal volume of gastric contents. The end-point of digestion is considered to be reached when ammonia, layered on top of the mixture, no longer gives a white ring. Gastric contents are added to the solution of an acid casein dissolved in dilute HCl, in the methods of Volhard⁸ and Gross.⁵ In the latter method the end-point of digestion is reached when no cloudiness is developed upon the addition of sodium acetate. In the method of Volhard the mixture of gastric contents and casein solution are incubated a specified length of time. Then the undigested casein is precipitated by the addition of sodium sulphate and filtered off. The filtrate is titrated with N/10 NaOH, against phenolphthalein, and the increased acidity is used to express the amount of peptic action which has occurred.

Schorer⁵ has developed a refractometric method for the estimation of the action of pepsin, and Northrup⁵ an electrical conductivity method. These methods are not practical for clinical use and will not be discussed.

In criticising such methods as those outlined, or in devising new methods which are clinically applicable to the estimation of enzymatic activities of fluids obtained from the gastrointestinal tract, it is important that certain factors be considered. These factors⁴ are (1) quantitative accuracy and practicability of procedures for estimating the amount of enzyme action; (2) uniformity of enzymatic activity; (3) proportionality of enzyme action; (4) stability of the

*The sediment must be pure white and not discolored by the precipitation of any of the coloring matter.

enzyme, and (5) the physical state of the medium in which the enzyme is to act.

Uniformity of enzyme action means that under a certain set of experimental conditions a given specimen of gastric contents will give the same results on repeated analyses. By proportionality is meant the relation existing between the amounts of material digested by varying quantities of gastric contents; *i.e.*, in the method here described 2 c.c. of the diluted gastric contents will digest one and one-half times as much edestin as will 1 c.c. of the same dilution. Stability of an enzyme is a term used to express the length of time an enzyme will remain active. The physical conditions under which an enzyme acts are important because in order to obtain uniformity of action the physical conditions must be constant. One essential reason for this is the fact that the size of the surface area of material exposed to enzyme action is a governing factor in the amount of the latter which will occur. Other factors are temperature, and the buffer conditions determining hydrogen ion concentration.⁹

In classes 1 and 2, under description of previous methods, the solid state of the protein to be acted upon allows for great variation in the surface areas of different preparations. In none of the three classes of methods was an attempt made to find hydrogen ion concentrations and buffer conditions which would bring about uniformity of enzyme action, nor was considered the effect of adding the gastric contents on the pH and buffer conditions of the medium in which the pepsin was to act. Furthermore, in most of the methods the technic used does not permit an accurate estimation of the end-point of digestion. From these remarks it is obvious that methods previously proposed for the estimation of peptic activity of gastric contents have not fulfilled the five conditions described above, observance of all of which are considered essential for a method whose use is designed to give information concerning relative quantities (concentration) of pepsin present in different specimens of gastric contents.

While devising the new method here described an attempt was made to find pH and buffer conditions which would give uniformity of peptic activity of gastric contents. During this attempt results were obtained which indicated that a sodium citrate-hydrochloric acid mixture modified the action of pepsin. Further investigation led to the mixture described under the technic of the method; and under the experimental conditions outlined uniformity of peptic activity is obtained. The proportionality obtained is 1:1.5; *i.e.*, 2 c.c. of diluted stomach contents will digest one and one-half times as much edestin as will 1 c.c. of the same dilution. Under the experimental conditions outlined it has been found that pepsin remains stable for a considerable number of hours. The physical condition of the edestin is that of a solution, so that the

factor of surface area is constant; and the possibility of disturbances in hydrogen ion and buffer conditions on the addition of the gastric contents has been obviated by sufficiently diluting the latter. This brief discussion shows that the new method is in harmony with the factors generally accepted as determining enzyme action, and which are considered essential for the estimation of enzymatic activity. Further, it is directly applicable to determining this factor in the gastric secretion, and permitting the possibility of an interpretation of results for physiologic or pathologic purposes. The procedure for digesting the filtrate, given in the description of the technic of the method, allows the determination of widely varying degrees of peptic activity. This makes easier the application of the method to the study of pathologic gastric physiology.

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FRACTURE-DISLOCATIONS OF THE HUMERAL HEAD.

BY WELLER VAN HOOK, A.B., M.D., CHICAGO.

It is time for surgeons to recognize that a revolution has taken place in the open treatment of joint-injuries and diseases through the knowledge that subcutaneous fat-tissue can be excised from its seat, even without pedicles, and replanted successfully in injured joint-cavities. For this artifice makes it possible safely to leave in the joint-cavity bone surfaces not covered by periosteum or cartilage, and synovial membrane but covered by fat-tissue. Even defects of joint-capsules and ligaments result in minimal disturbance of function if the space is filled in with fatty connective tissue.

The mode of action, the meaning of this effect of fat transplantation needs a moment's thought for its full comprehension. Fat-tissue is areolar connective-tissue having a tendency to the storing of oil in the cell-bodies. This tissue has an abundance of lymphatic spaces and channels and a fair degree of vascularity. It is probably not exceeded in adaptability by any other tissue in the body. Everyone knows how easily the areolar tissue retracts when illness occurs, how the eye-ball stands out, the cheeks shrink, and wrinkles appear, and how, in certain diseases, such changes as those just mentioned become relatively permanent. A laborer, exhausted by a day's activity, shows

the lack of water in his tissues in the same way; next day he is himself again. After typhoid fever the areolar-tissue is emptied of the fat which was stored in the cell-bodies. Over-feeding for some weeks is required to restore the fullness. In the first case the lymphatic spaces and channels are more drawn upon, in the second case the cells themselves are deprived of their store of fat.

Again, when this tissue is subjected to recurrent pressure, as about the ischial region and back, it undergoes a sort of thickening or condensation. *Per contra*, the fat about the female mammary gland is soft and loose. So when areolar-tissue is transplanted, it must soon conform, in some degree, to the new physiologic local requirement. In joints, if subjected to recurrent pressure, it becomes thinner, tougher, and more resilient; and it loses much of its oil and lymph-space distention. It becomes resistant to traumatism, yet it retains much of its resilience.

J. B. Murphy thought that the transplanted fat-tissue became hygomatous in character. But Lexer discredits the idea, with apparent justice, and shows how the transplanted tissue adapts itself to the new situation. He thinks that the fat-tissue, having undergone regressive changes, becomes vascularized in its new location by ingrowth of blood-vessels from the neighborhood, and that then a true but slight regeneration of fat-tissue can occur.

Moreover, by rapidly healing into gaps in other connective-tissue structures, transplanted fat-tissue prevents these structures from contracting adhesions to neighboring tissues, and leaves them free.

And this provision of surfacing tissue makes possible the growth of the endothelial cells lining the cavity over the engrafted structures, completing the capsule of the joint. Of course the foundation structure of the part is incomplete. Fat-tissue cannot replace wholly the lost bone, cartilage or fibrous connective tissue. The surgeon must bear this in mind and act accordingly. He must provide fibrous tissue and bone for support and muscle attachment where needed.

He who could successfully use this wonderful addition to our resources in joint-surgery must understand its principles and apply them. It is not to be forgotten that pedicled flaps, carrying with them their own blood and lymph supply, are superior to free flaps, for the latter cannot become as freely vascularized as the former. It is necessary to attach the flap where it is to grow, and the neighboring structures must not unduly interfere with it. And the joint must be dressed in such a position that relaxation is maintained until healing has occurred.

Then it must be remembered that functional management is most important. Massage and both passive and active motion are of supreme importance in gaining a functional success.

In carrying out this work dead spaces must be avoided, the distance between joint ends must be as small as possible. The most important structures are to be preserved (Lexer) and the re-establishment of muscular activity must be cared for.

The proper application of these general principles profoundly modifies all our previous conceptions of joint-surgery. Into other fields of their application we cannot now go; we are concerned with fracture-dislocation of the shoulder.

Fractures of the tuberosities of the humerus, whether extensive displacement has occurred or not, may well be treated as Speed¹ suggests, by open attack. The detached tuberosity may be held in place by a nail, screw or other mechanism. In such cases I would recommend raising a flap of areolar (fatty) connective-tissue from the side of the wound and suturing it to the capsule so that its body covers the bone-wound. Of course if the muscles could be attached otherwise to the humerus, the tuberosity could be sacrificed at once. Its value lies chiefly in supplying a point where the muscles can grasp the bone. If the small mass were removed, pedicled or free flaps of fatty connective-tissue would still need to be applied.

Where the whole head of the humerus has been broken off at the surgical neck, or separated at the epiphyseal line, or where a large part of the head is split off, healing takes place well enough if impaction has occurred, if reduction is effected or if aseptic re-attachment has been brought about by open operation. Incomplete reduction tends to much disability (Stimson's *Work on Fractures*).

But where dislocation of a comparatively small fragment, without muscle attachment, has occurred at the moment of fracture, the difficulty of replacement is usually great.

McBurney (*Annals of Surgery*) advised drilling a hole in the side of the loose body, and inserting into it a handled hook, which would give the operator a powerful grasp of the fragment that would enable him to draw the detached piece back into its place. In elderly, fat or feeble patients, the manipulations required may be so severe, so compromising to the neighboring structures that their desirability in opposition to the removal of the fragment may well come into question.

Tanton² reminds us of some of the older ideas as to treatment. He recalls the old, fabulous notion of letting the shaft unite to the fragment, and then reducing the dislocation with the aid of the shaft as a lever, the surgeon comfortably forgetting that, in the interim, the connective-tissues of the part would have suffered many deep-seated changes.

He recounts the method of Ribéri, in which the head is left in its dislocated position, and effort is made, by early and prolonged mobilization, to produce a "humero-glenoidal ankyrosis." Despite the fact that the method has

been followed by some successes it is not to be recommended, for obvious reasons.

And he mentions simple reduction, which, even when successful (as reported by Buchanan, Lambret and Hitzrot), does not seem to him to give results superior to that of excision of the small fragment. Indeed, Tanton, agreeing with Buchanan, regards excision as the method of choice. Sir Robert Jones seems to have been successful in reducing many cases with good functional results, using bloodless methods.

Hennequin and Loevy³ assert that intra-capsular fractures at the shoulder heal as well as extra-capsular, in opposition to the conditions at the hip. They state that full recovery of function cannot take place in them beyond middle age in less than six months or a year, if at all, unless reduction is complete.

On the other hand, J. B. Murphy⁴ has reported a brilliant result after nailing the small fragment in place.

Pool presented before the New York Surgical Association a woman, fifty years of age, upon whom he had performed an open reduction of a subglenoid dislocation, fracture having occurred at the anatomical neck. A practically perfect result followed. Tilton advocated attempts at reduction if there were periosteal attachments. Mathews found it impossible to reduce after three to five weeks, the glenoid seeming to be practically obliterated. Lilienthal had had four cases of fracture-dislocation with the best result in the case in which he was obliged to remove the head.

So there are not a few surgeons who prefer excision of the fragment, while some attempt closed reduction or effect bloody replacement and add some form of osteosynthesis.

This paper is written to contend that, with the use of a flap of fatty connective-tissue, the preference should be given to excision of the fragment, except in unusual cases, where reduction can easily be effected in comparatively young people or where the displacement of one of the tuberosities, with attached muscle, necessitates reattachment.

For what is to prevent the shaft of the humerus from resuming its function if properly brought into the empty glenoid cavity after the removal of the segregated head? It would be, I think, the filling and contraction of the glenoid in delayed cases, the shrinking of the capsule, and particularly the formation of adhesions about the denuded, fractured end of the humeral shaft. And, if operation is done early this need not occur.

The following case presents a cogent argument for the propriety of this choice of procedure.

A lady of fifty-two years, with medium skeletal development, fat, flabby and of pronounced sedentary habits, was struck by an automobile and thrown upon the right shoulder. I did not see her until four weeks later, when Dr. E. A. Doepp called me in consultation. The very imperfect x-ray picture showed a saucer-like piece

of bone knocked off the head of the humerus and lodged downward below the glenoid cavity. In view of the patient's condition, replacement with osteosynthesis seemed inadmissible; excision appeared necessary.

The joint was opened by an incision that separated the pectoralis muscle fibres, and the detached piece was removed. The upper end of the shaft entered the glenoid cavity without trouble. And the arm was dressed in a position of extreme abduction, after a large pedunculated flap of fatty-areolar tissue had been raised from the soft parts of the neighborhood, accurately pushed down through the joint cavity, and fastened with catgut in place between the injured humeral head and the glenoid cavity.

Recovery took place slowly, although wound healing was ideal. A very skilled masseuse kept up slight motion and promoted the general nutrition of the parts. But after several months, even a pronounced paresis of the deltoid, due to the original trauma, was overcome, and motion is now almost perfect at the shoulder-joint in every direction.

In this aseptic case the interposed flap of fatty tissue filled in empty spaces, hastened coagulation, and prevented all injurious adhesions.

Conclusions:

(1) Where wounds of the bony surfaces of any joint or of its capsule have occurred, and especially where loss of substance has taken place, fatty tissue (usually subcutaneous areolar tissue) should be implanted to cover the defect, whether or not the injured tissue lies between articulating surfaces.

(2) Since transplanted fat-tissue must become vascularized before it can be permanently stable in its new histological and functional relations, pedicled flaps are better, *ceteris paribus*, than free flaps which must acquire entirely new blood and lymph vascular associations.

(3) The removal of fragments of the humeral head, after simple fracture, gives excellent results under aseptic healing. But muscular attachments must be re-established, capsular rents and bone surfaces deprived of endothelium should be covered with transplanted fascia and fat, dressing should be maintained in full abduction, and massage and passive motion must be instituted and kept up until the maximum of function is restored.

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The two extremes, the retarded pupil and the very bright pupil, have received a major share of consideration during the last two years from educators who are working on problems in primary education in psychological clinics and departments of research in city school systems.

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CENTENARY OF LOUIS PASTEUR.

On the 18th of December, at Columbia University, in Havemeyer Hall, a large meeting was held to pay tribute to the memory of the Great Pasteur on the one hundredth anniversary of his birth.

The participating departments of the University were the College of Physicians and Surgeons, the Department of Romance Languages, and the Faculty of Pure Science, in coöperation with University Extension—the Institute of Arts and Sciences. Dean Woodbridge of the School of Pure Science presided.

Emmanuel de Margerie, of the University of Strasbourg, French exchange engineering professor, spoke briefly on "France's Estimate of Pasteur." He emphasized the fact that France revered Pasteur not only as a scientist but as a man. He showed that Pasteur was a man of a deeply religious nature, and that "Faith" was one great characteristic which permeated his thoughts and helped accomplish his deeds. He stated that about 30,000 out of 36,000 communes in France have honored the memory of Pasteur by giving his name to a street or an avenue. He said that a large percentage of the school children of France answered "Pasteur" to the question, "Who was the greatest son of France?"

Gary N. Calkins, professor of protozoology, next spoke on "The Debt of Biology to Pas-

teur." He referred to Pasteur as a "consummate master of the methods of science," applying the scientific method to both medicine and biology, though being neither doctor nor biologist. "The greatest expression of his genius was the Glorification of the Scientific Method." He pointed out that achievement comes not from reflected radiance of the palace of research, but from within. In showing how Pasteur's mind worked progressively, he pointed out that from the great end-results in preventive medicine one could look back to his work on rabies, on anthrax, on chicken cholera, or the silk-worm epidemic, on the activities of minute organisms, and on the discovery of the rotary power of crystals and molecular asymmetry. He showed how Pasteur shattered the old theory of fermentation and the still prevailing notion that small living beings, even as large as eels and lizards, were produced by "spontaneous generation." He emphasized the point that Pasteur laid down the great principles which were the basis of the modern technique in bacteriology and surgery.

Dr. Frederiek S. Lee, research professor of physiology, then spoke on "The Debt of Medicine to Pasteur." He referred to Pasteur as the revolutionizer of the science and practice of the healing art; as a dreamer who made realities of his dreams. He spoke particularly of his work on chicken cholera, anthrax and rabies, showing that Pasteur established three great principles:

1. That infectious diseases are caused by specific virus or organisms.
2. That the virus may be weakened by artificial means.
3. That the weakened virus may be used to protect against the stronger.

Dr. Lee had seen Pasteur in his great Rabies Clinic and spoke of him as "ever watchful, alert and sympathetic." Pasteur, he said, would accept no new fact except after repeated careful experiments; would arrive at no hasty conclusions, and was almost overconscientious in his carefulness. He vindicated, Dr. Lee said, the use of the laboratory as related to the bedside and the clinic. He waged constant warfare against "tradition not supported by facts," applying the method of proof by scientific experiment, the logical method of attacking all problems.

The one great lesson for a doctor to learn from the life of Pasteur is the dependence of true medicine on science and the methods of science.

Dr. Lee closed his address by turning to Professor de Margerie and declaring that the old friendship of France and the United States would ever be strengthened by the men of science in both countries who were following in the footsteps of the illustrious master, Pasteur.

TREATMENT OF MORPHINE ADDICTION.

We would not attempt to cure a consumptive of twenty years' standing in a few weeks, so why try to cure in haste a person whose system has been saturated with morphia, and who is suffering from as real a disease as the consumptive, writes Margaret Vivian, L.M.S.S.A., Lond., in the *Medical Press and Record*.

Most institutions for the cure of addicts either cut them off entirely and at once, or reduce their daily allowance so rapidly that much suffering is entailed, and they are discharged in a few weeks, almost sure to relapse.

The method used by this writer is much different and, as is logical, much more time consuming. Whatever the patient had been taking he is immediately reduced to two grains a day, on which dosage he can live comfortably. When he has become accustomed to this dosage he will eat and feel better. The daily dose is then reduced by one-quarter grain, each reduction remaining stationary until he has become accustomed to it. This is repeated until an allowance of one grain a day is reached, and eventually this is given at one time, in the morning, when it is most needed. From now on the reduction is carried out very slowly, one-half grain at a time, even if it takes 12 months to get rid of the last grain.

The hypodermic injection of emetine has been found a valuable ally. The writer used daily 3 doses of one-sixth grain each, reducing the dose after the first month or two.

 MEDICAL LITERATURE.

It is an awe-inspiring sensation, sometimes, as we sit upon the bank of the stream, to contemplate the flood of medical literature that pours past us like a mighty current, swollen and angry with the increasing burden of the spring freshets that are forced upon it. Where does it come from and whither does it go? Its sounds, we try to think, are in the distant hills of ideas and inspiration; its final resting places, we are forced to admit, are generally the dark eisterns of musty library filing shelves; eisterns always full but seldom drunk from. How often have we considered launching a frail bark on that mad torrent, but timidly withdraw, too conscious of the fate of the other flotsam that we see gliding past us. The bark that we would rather test on that strong course must be well framed and well timbered if we would have it live and tell its tale and carry cargoes.

There is a certain fascination about the printed word, especially if originally penned by oneself, and more especially if bearing the author's name, that is very subtle. We have all felt this hypnotic influence and struggled away from it or succumbed and produced, after great travail, an article, its main claim to distinction expressed by the candid phrase "a poor thing,

but mine own." We would advise any young author who contemplates throwing his chip upon the stream, either because he feels a message stirring within him, or for reasons of policy, to enter any large medical library and stand for a few moments,—like Clemenceau among the mastodons,—gazing upon those silent volumes in that great cemetery of ideas. If he is still eager then to scarify white paper, let him get prayerfully to work. It may be that he can carve for himself a seat among the mighty and launch upon the world a new idea.

There are four types that usually deserve consideration. There are those that write but think not; there are those that think not and write not—and this abstinence deserves some credit; there are those that think but write not, and they form an intellectual and untried bulwark; and there are those honored few who think and give us their thoughts. Current medical literature is aptly named, for it comes through a stony channel and babbles as it flows, but it waters no gardens of the mind. It would be better for us all if its volume were reduced three-fourths, and so selected and directed as to irrigate the germs of ideas that lie dormant in our minds.

It is not a nihilistic text that we would preach, for the printing press is the greatest constructive engine in the world, but it must grind the wheat and not the chaff. If you have a message that must be delivered to the waiting multitude, no matter what the cost, then like Pheidippides of old, gird up your loins and make the effort; your achievement will be lasting and your memory honored.

 MEDICAL SCHOOL DORMITORIES.

"The Need for Dormitories at the Medical School" is the title of Dean Edsall's contribution to The Medical School Section of the Harvard Alumni Bulletin of December 7. The popular conception of the uses of students' dormitories has changed greatly in the last few years. Once considered of value for disciplinary reasons, because undergraduates could be herded together under the restraint of proctors, they have now, with the increasing country-wide difficulty of obtaining proper living quarters, become almost a necessity. The Medical School, as Dr. Edsall points out, is situated on the edge of a large city, somewhat remotely removed from desirable eating and lodging places. Many of the students come, unknown and friendless, from distant parts of the country and are forced to shift for themselves as best they can.

It is the theory among many older men, and men who are otherwise progressive, that what was good enough for them is good enough for the present generation. They are wrong in this, but their error lies in considering, or saying, that conditions which they were forced to meet

were good enough. One of the finer things about the present-day evolution of higher education is the interest and responsibility which the heads of our institutions are asserting towards their students as individuals. They are no longer regarded as impersonal beings who are to be crammed with as much technical knowledge as possible in a certain number of years, and then gotten rid of. Their hygiene, their physical well being, even their play are being regarded as factors in their lives to which we owe a duty. The students at the Medical School themselves, as evidenced by the report of a committee of their own number, feel the need of a dormitory and dining hall.

We are deeply interested in Dean Edsall's desire in this respect, and hope that the University may soon see its way clear to realize it.

CHILD HYGIENE.

Dr. Eugene R. Kelley, State Commissioner of Public Health of Massachusetts, in advising the Public Health Administration Section of the American Public Health Association at the Fifty-first Annual Meeting, in Cleveland, October 16, stressed the importance of a well-balanced nation-wide child hygiene program.

Dr. Kelley said, in part: "Two general methods of accomplishing the wide diffusion and application of public-health knowledge are naturally coming to the front. They may perhaps be designated as the autoeratic and the democratic. One concept of how best to reach all our fellow citizens effectively with the life-lengthening, life-broadening and life-brightening message of modern hygiene is to prod them into routine utilization of its teachings; the other concept is to lead them to it, but to lead them faster than has ever been done before in the world's history."

MEASLES.

The Bulletin of the Chicago School of Sanitary Instruction, published by the Department of Health, issues a warning regarding the commonplace way in which measles is being looked upon.

In the year 1920 nearly 10,000 children died of measles in this country. In 1921 120 deaths occurred in Chicago, and for the first ten months of this year 133 succumbed. Measles is distributed over the entire inhabitable globe from Iceland to Tierra del Fuego; when the Fiji Islands were invaded it was estimated that 20,000 deaths occurred in four months. In 1917 three states had a death rate of over 40 per hundred thousand from measles, and several of the large cities had even a higher rate.

News Notes.

PUBLICITY IN ILLINOIS.—The officers of Illinois State Medical Society have sent a letter to every physician in Illinois soliciting funds for the purpose of carrying on a lay publicity campaign through the newspapers of the state.

AWARD OF THE KNAPP MEDAL.—At the meeting of the Ophthalmic Section of the American Medical Association, Dr. Frederick H. Verhoeff, of Boston, was awarded the Knapp Medal for his paper on "Ghoinas of the Optic Nerve." Dr. Verhoeff is president of the New England Ophthalmological Society.

DR. F. W. PEABODY, of Boston, professor of medicine at the Medical School of Harvard University, and physician-in-chief of the Boston City Hospital, has been elected a member of the Council on Pharmacy and Chemistry to fill the vacancy caused by the resignation of Dr. C. L. Alsberg, formerly chief of the Bureau of Chemistry, Department of Agriculture, and now director of the Food Research Institute of Stanford University.

DEATH RATE IN BOSTON.—During the week ending December 16, 1922, the number of deaths reported was 238, against 199 last year, with a rate of 16.25. There were 35 deaths under one year of age, against 24 last year. The number of cases of principal reportable diseases were: Diphtheria, 76; scarlet fever, 61; measles, 62; whooping cough, 90; typhoid fever, 2; tuberculosis, 31. Included in the above were the following cases of non-residents: Diphtheria, 9; scarlet fever, 11; measles, 1; whooping cough, 2; typhoid fever, 1; tuberculosis, 4. Total deaths from these diseases were: Diphtheria, 1; scarlet fever, 2; measles, 3; whooping cough, 4; tuberculosis, 15. Included in the above, were the following cases of non-residents: Diphtheria, 1; scarlet fever, 1; tuberculosis, 4.

BROOKLINE BOARD OF HEALTH BULLETIN.—This publication for December, in addition to the usual warnings about disease and advice regarding health rules, has a timely article on "Christmas Candy." The argument is submitted that since sugar alone only provides heat and energy and that other foods furnish these essentials, that the effect of candy is more likely to disturb digestion than to provide needed nourishment.

Further, that sweets can be eaten to much better advantage as found in fruits, and the claim is made that dates, figs and raisins are the most wholesome form of sweets for children.

Another article on school lunches presents a rational dietary for children.

THE HEALTH ADVISORY COMMITTEE OF THE RED CROSS.—This committee consists of Surgeon-General H. S. Cumming, Dr. George M. Piersol, Prof. C. E. A. Winslow, Dr. Livingston Farrand, Dr. John H. J. Upham, Douglas Griesener, Dr. Franklin Martin, Dr. William H. Welch and Dr. Herman M. Biggs. A meeting was held at headquarters this month for the purpose of formulating suggestions relating to health activities of the Red Cross.

MASSACHUSETTS GENERAL HOSPITAL.—A clinical meeting of the Out-Patient Staff was held in the Lower Out-Patient Amphitheatre Wednesday, December 20, 1922, at 12 noon.

Subjects discussed: Arthritis, Dr. R. B. Osgood; Arthritis, Dr. L. T. Swaim.

THE SECRETARY OF THE MASSACHUSETTS MEDICAL SOCIETY, Dr. Burrage, has moved to 182 Walnut Street, Brookline, near Village Square. To reach him telephone Brookline 0860 or take any electric car passing through Village Square, i.e., Boston & Worcester, Cypress Street, Chestnut Hill, Washington Street or Harvard Street.

Walnut Path, the first stop on Boylston Street, after Village Square, is opposite his house.

DR. HUBERT WORK'S SUGGESTION.—Dr. Work, retiring president of the A. M. A., has recommended dividing the Medical Profession in the United States into district medical organizations. At a banquet of the officers of the State Medical Societies comprising the Southern Medical Association this plan was opposed in the form of a series of resolutions.

DR. HOWARD A. KELLY'S EXPERIENCE WITH A SNAKE.—Last March Dr. Kelly was collecting snakes in Florida and was bitten on the end of an index finger by a cotton mouth moccasin about thirty inches long. Thinking that the snake had exhausted its supply of venom by biting itself three times, Dr. Kelly did not consider it necessary to make use of permanganate of potassium. He did not even place a ligature about the finger. Although the finger and hand became very swollen and there were enlarged axillary glands there was no constitutional disturbance. After the bite free hemorrhage occurred. The recovery of the finger was slightly incomplete after seven and a half months. The details of this experience are given in an article written by Dr. Kelly, which appeared in the *Therapeutic Gazette* under date of December 15, 1922.

WORCESTER DISTRICT MEDICAL SOCIETY.—The regular meeting of the Society was held at the G. A. R. Hall in Worcester, Dec. 13, 1922, at 4:15 P.M.

Dr. Walter D. Bierberbach of Worcester read an interesting paper on Kidney malformations and reported an interesting case of a unilateral fused kidney that had come under his observation. Dr. Philip H. Cook showed slides illustrating the value of Pyelography in the study of kidney malformations.

Dr. J. Dellinger Barney read a paper on the Operability of Prostatic Obstruction and discussed the problems as met in a large series of cases. Dr. Trowbridge showed a badly infected kidney which he had removed, with photographs of a large number of stones which were found in the kidney.

Dr. O. Draper Phelps in discussing the papers emphasized the value of drainage and said that in his experience the best anesthetic was gas oxygen. At the business meeting Dr. R. J. Shannahan, chairman of the committee appointed at the September meeting to consider the advisability of the society adopting the American Medical Association's Caduceus for the automobiles of the members, to take the place of the green cross that is now used by so many cults, reported that he had received 130 replies to requests for an expression of opinion as to the advisability of such action in favor of the adoption and four in the negative.

It was then voted to adopt the Caduceus and Dr. R. J. Ward was instructed to arrange to secure the emblems in quantity. The price will be \$1.20 if not less than 100 are ordered. All the members who wish to order them will please send their check for \$1.20 to Dr. Roy J. Ward at once, that the order may be placed as soon as possible. It was voted to pay the bills of the open meeting on cancer, amounting to sixty-three dollars.

Drs. G. N. Cobb and M. M. Jordan have announced the removal of their offices to 21 High Street, Worcester, Mass.

THE GRADUATING EXERCISES OF THE JANUARY AND APRIL CLASSES OF WORCESTER CITY HOSPITAL TRAINING SCHOOL FOR NURSES were held Friday evening, Dec. 15, 1922. The January class consisted of Dorothy A. Freeman, Harriet E. Small, Elizabeth Corkum, Hazel M. Palmer, and Elizabeth M. Sheahan. The April class consisted of Mary E. Moore, Katherine J. Quirk, Mildred A. Stevens, Mary E. Garrity, Agnes M. Curley, Earl C. Marling, John F. Brazzil, Joseph G. Gaylord, Thomas A. Balboni, and Peter W. Babbitt.

CENTENARY OF LOUIS PASTEUR.—A meeting to commemorate the centenary of Louis Pasteur was held under the auspices of Columbia University Monday, December 18, in Havemeyer Hall, New York City. Speakers: Emmanuel de Margerie, D. ès S., of the University of Strasburg; subject, France's Estimate of Pas-

teur. Gary N. Calkins, Ph.D., Professor of Protozoology; subject, The Debt of Biology to Pasteur. Frederic S. Lee, Ph.D., L.L.D., Research Professor of Physiology; subject, The Debt of Medicine to Pasteur.

INSULIN IN DIABETES MELLITUS.—At a meeting conducted by the New York Academy of Medicine on Dec. 21, 1922, Dr. F. G. Banting of the University of Toronto read a paper on Pancreatic Extract in Diabetes Mellitus. The paper was discussed by Frederick M. Allen and Henry R. Geyelin and Nellis B. Foster.

THE OPENING OF THE NEW BOSTON LYING-IN HOSPITAL.—The trustees, the medical staff and the Board of Lady Visitors of the Boston Lying-in Hospital issued invitations for the opening of the new hospital, 221 Longwood Avenue, corner of Avenue Louis Pasteur, on Wednesday, December the 27th, from 3 until 6 o'clock.

UNWELCOME GUESTS.—Chicago is trying to stir up interest in a rat-exterminating campaign, finding herself unwilling to play host any longer to a large house party which costs millions of dollars every year. Other cities are ridding themselves of these expensive pests, notably Boston, which has recently increased her rat-catching force.

DRY SWEEPING PROHIBITED.—New York has added a new regulation to her sanitary code prohibiting dry sweeping in any place or room where food or drink is prepared, cooked, mixed, baked, exposed, bottled, packed, handled, stored, manufactured, offered for sale, or sold.

BREAST FEEDING VS. BOTTLE FEEDING.—The Bulletin of the Chicago Department of Health points out that artificial feeding as practiced in typical city populations, among all classes, nationalities, and earnings groups, is attended by a mortality from three to four times as high as the mortality among breast-fed infants.

This situation lends itself ideally to correction by the practicing physician.

MEETING OF THE ESSEX SOUTH DISTRICT SOCIETY.

The Essex South District Society of the Massachusetts Medical Society held their regular meeting at the Beverly Hospital, Wednesday, December 13.

From six to seven there was inspection of the hospital followed by this program of short talks and demonstrations given by members of the staff:

6:00 and 6:15—Pathological Laboratory. (a) Easy Method of Staining Diphtheria Smear for quick Diagnosis. (b) The Importance of Differential White Count. Dr. Clifton Buck, Medical Staff, Beverly Hospital.

6:00 and 6:15—Doctors' Library. Middle Ear Disease and Mastoiditis in Malnutrition. Dr. Thomas Odeneal, Otolologist, Laryngologist and Ophthalmologist to Beverly Hospital.

6:30 and 6:45—Doctors' Library. Showing of cases. Dr. P. P. Pohnson, Surgeon in Chief, Beverly Hospital. Demonstration and talk. Dr. Isobel Bogan, Roentgenologist, Beverly Hospital, showed interesting X-rays between 6:00 and 7:00. Miss Pauline Smith, Occupational Aid, Beverly Hospital, demonstrated Occupational Therapy between 6:00 and 7:00.

Dinner was served at 7:00 P. M. after which the following program was enjoyed: Dr. F. W. Baldwin, president of the Essex South Society, presiding:

Address of welcome by Mr. John L. Saltonstall, president of the Board of Directors of the Hospital.

Address by Dr. John W. Bartol, president of the Massachusetts Medical Society.

Address by Dr. Walter Bowers, Managing Editor of the BOSTON MEDICAL AND SURGICAL JOURNAL.

A paper by Dr. Peer P. Johnson, Surgeon in Chief of the Hospital, entitled "Diagnosis of Gall-Bladder Disease." The points brought out in his paper were illustrated by showing of cases.

Dr. J. D. Adams, Boston, visiting Orthopedist of the Beverly Hospital, spoke on backache and other orthopedic problems.

About one hundred members were present. The following towns were represented: Boston, Lynn, Swampscott, Cliftondale, Salem, Beverly, Hamilton, Ipswich, Manchester, Danvers, Middleton, Hathorne and Essex.

The following local men hold these offices in the Society: President, Dr. F. W. Baldwin; Vice-President, Dr. J. A. Shatswell; Secretary, Dr. R. E. Stone; Councilors, Dr. P. P. Johnson and Dr. G. M. Cline.

—R. E. Stone, M.D., Secretary.

WILLIAM THOMPSON SEDGWICK MEMORIAL LECTURESHIP.

For the purpose of commemorating the services of William Thompson Sedgwick to the cause of Biology and Public Health there has been established a Memorial Lectureship in the department of the Institute of Technology which he created. The desire of the founders is that the Sedgwick Memorial Lectures shall be given from year to year by men of distinguished eminence in any one of the subjects comprehended within the general scope of Biology and Public Health in order that it may fittingly express the deep and broad sympathy of the man whom the Lectureship is designed to honor.

The committee in charge of the Lectureship

consists of: Samuel C. Prescott, Massachusetts Institute of Technology; Edwin O. Jordan, University of Chicago; George C. Whipple, Harvard University; Gary N. Calkins, Columbia University; Charles E. A. Winslow, Yale University.

The first William Thompson Sedgwick Memorial Lecture will be given in Huntington Hall, 491 Boylsten Street, Boston, Mass., on Friday, December 29, at 5 o'clock, by Edmund Beecher Wilson, Ph.D., Sc.D., LL.D., M.D., Da Costa Professor of Zoology, Columbia University, on *The Physical Basis of Life*.

The public is cordially invited to attend.

MENTAL HYGIENE.

The Monthly Bulletin of the Massachusetts Society for Mental Hygiene for December reports that The Connecticut Valley Committee in Springfield has arranged an instruction or lecture course on "The Mental Hygiene of the School Child," which will consist of seven weekly lectures, to be given at the Springfield Academy of Medicine. The first of this series will commence on Wednesday, January 3.

"THE MENTAL HYGIENE OF THE SCHOOL CHILD."

Wednesday, January 3.—"What Is Mental Hygiene and Why Does It Concern Every One?" Dr. George K. Pratt, Medical Director, Massachusetts Society for Mental Hygiene, Boston.

Wednesday, January 10.—"Conduct Disorders in Children of the Pre-School Age." Dr. Douglas A. Thom, Director, State Division of Mental Hygiene; Chief of the Boston Habit Clinic.

Wednesday, January 17.—"Nervousness and Nervous Breakdowns in School Children." Dr. Abraham Myerson, Assistant Professor of Neurology, Tufts Medical School, and Consulting Neurologist of the Psychopathic Hospital, Boston.

Tuesday, January 23.—"The Backward Child." Dr. George E. McPherson, Superintendent, Belchertown State School for the Feeble-minded, Belchertown, Mass.

Tuesday, January 30.—"The Delinquent Child." Dr. Augusta Bronner, The Judge Baker Foundation, Boston.

Tuesday, February 6.—"The Mental Health of the High School Student." Dr. A. Warren Stearns, Assistant Professor of Neurology, Tufts Medical School, and Physician of Nervous and Mental Diseases, Boston Dispensary.

Wednesday, February 14.—"Education and Mental Hygiene." Dr. William H. Burnham, Professor of Pedagogy, Clark University.

The course tickets are obtainable from Miss Marjorie R. Latimer at Central High School,

Springfield, and will cost \$2.50. Single lecture tickets are 75 cents each.

A "Mental Health Week" was conducted in Fitchburg, to stimulate public interest in the establishment of a local branch of the Society and to focus attention on the new clinic secured for that place.

Speakers furnished by the Mental Hygiene Society addressed various civic organizations in Fitchburg, such as the Rotary Club, Chamber of Commerce, the Women's Club, the Community League, and others on popular mental health topics. Some of the clergymen volunteered to make this subject the topic of a Sunday sermon, and generous press publicity was secured.

The concluding event of this "week" was a large public meeting on the evening of Friday, December 15th, at Wallace Auditorium. At this meeting the local branch organization was launched and announcement made of improved clinical service to care for early cases of mental disorder occurring either in children or adults.

This clinic was made possible through the cooperation and interest of Dr. Charles E. Thompson, Superintendent of the Gardner State Hospital and the new State Division of Mental Hygiene under Dr. Douglas A. Thom. Arrangements have been completed to have this clinic, which will be held regularly once a week, provide service not only to Fitchburg, but to the surrounding district as well. The clinic team will consist of a physician, a psychologist, and a social worker, all from the Gardner State Hospital.

CLINIC AT THE CHILDREN'S HOSPITAL.

The first Staff Clinic of the season was held at the Boston Children's Hospital on Friday afternoon, December 8th. Dr. Ober showed two cases, one of acute infectious arthritis of the hip, drained posteriorly with good function; the other a case of tuberculosis of the pubic bone extending outward to the hip. Dr. Anderson showed the x-rays of two babies each with diaphragmatic hernia. He spoke of the gurgling of gas in the bowel as the sign upon which the diagnosis was made in one case before the x-ray was taken.

Dr. Hill showed a child with purpura hemorrhagica on whom five transfusions had been done. The lack of blood platelets is supplied thereby but unfortunately the life of the platelets is only a few days.

Dr. Schloss showed very strikingly by x-ray plates the rapid deposit of calcium at the epiphyseal line as a result of the administration of cod-liver oil and exposure to ultra-violet light.

Dr. Osgood emphasized the great importance of safeguarding our milk supply to prevent

surgical tuberculosis in children. He spoke of the great frequency of tuberculous bone and joint disease in Edinburgh, where no attention was paid to bovine tuberculosis.

Dr. Cutler and Dr. Crothers showed a child with abscess of the frontal lobe of the brain, secondary to an injury received about six months before. The condition had been mistaken for anterior poliomyelitis and for tuberculous meningitis.

Dr. Stone showed a girl with bilateral hare lip but with a very small intermaxillary bone and with a flat nose due to defect of the nasal septum. The case resembled the so-called median hare lip.

Dr. Liebman spoke of the almost specific influence of the x-ray in the treatment of keloid but advised excision followed by x-ray exposures in the treatment of the extremely large keloid of the neck which he showed.

Dr. Mixer showed a case of retro-pharyngeal glandular tuberculosis associated with tuberculosis of the cervical lymph nodes. The retro-pharyngeal abscess was drained by opening the external abscess with which it communicated through a small opening.

The clinics are held at the Children's Hospital once a month, on Friday afternoons at 4.30. All physicians are invited. The dates of future clinics are January 12, February 9, March 9, April 13, May 11.

THE MEETINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

Attention was called to the meetings of this Association last week.

The meeting on the afternoon of Friday of this week is of special interest to physicians and it is hoped that there will be a large attendance.

The speakers are Dr. R. P. Strong of Harvard University, Dr. A. B. Macallum of McGill University, Dr. C. T. Brues of the Bussey Institute, Harvard University, Dr. L. O. Howard of the United States Bureau of Entomology, Dr. C. W. Stiles of the United States Public Health Service and Dr. C. A. Kofoed of the University of California.

Miscellany.

RÉSUMÉ OF COMMUNICABLE DISEASES, NOVEMBER, 1922.

GENERAL PREVALENCE.

The more prevalent diseases showing an increase over the previous month are as follows: chicken-pox, diphtheria, measles, mumps, pneumonia (lobar), scarlet fever, whooping cough.

	Nov. 1922	Oct. 1922	Nov. 1921
Chicken-pox	664	199	646
Diphtheria	1263	1021	1185
Measles	1166	686	578
Mumps	449	188	241
Pneumonia, lobar ..	445	236	353
Scarlet fever	809	554	661
Whooping cough ...	1056	634	223

RARE DISEASES.

Anterior poliomyelitis was reported from Boston, 9; Cambridge, 2; Lawrence, 1; Lexington, 1; Lynn, 3; Northampton, 1; Orleans, 1; Somerville, 1; Waltham, 1; Woburn, 1; total, 21.

Anthrax was reported from Peabody, 1.

Dog-bite requiring anti-rabic treatment was reported from Boston, 1; Chelsea, 6; Lowell, 4; Salem, 6; total, 17.

Encephalitis lethargica was reported from Boston, 1; Everett, 1; Lawrence, 1; Lynn, 1; Malden, 1; Marlboro, 1; Peabody, 1; Quincy, 1; Salem, 1; W. Bridgewater, 1; total, 10.

Epidemic cerebrospinal meningitis was reported from Adams, 1; Boston, 7; E. Bridgewater, 1; Fall River, 2; Gardner, 1; Melrose, 1; New Bedford, 1; Springfield, 1; total, 15.

Hookworm was reported from Boston, 4.

Malaria was reported from Boston, 1; Douglas, 1; Walpole, 1; total, 3.

Pellagra was reported from Boston, 1.

Rabies was reported from Boston, 1; Medford, 1; total, 2.

Septic sore throat was reported from Arlington, 1; Boston, 3; Cambridge, 1; Fall River, 1; New Bedford, 1; total, 7.

Smallpox was reported from Hadley, 1.

Tetanus was reported from Lynn, 1; Worcester, 1; total, 2.

Trachoma was reported from Boston, 11; Lynn, 1; Plymouth, 1; total, 13.

Trichinosis was reported from Holyoke, 1.

Obituary.

HERBERT CLARK EMERSON, M. D.

Death has claimed Dr. Herbert C. Emerson of Springfield, president of the Springfield Hospital, bacteriologist and chemist. He died December 6, 1922, after an illness of a few weeks.

The son of Moses Emerson, of the Home Fire Insurance Co., of Boston, he was born in Claremont, N. H., December 19, 1865. He was prepared for college at Phillips Andover Academy, graduated at Amherst in 1889, and at Harvard Medical School in 1893. After serving as house officer at Boston City Hospital and Boston Lying-in Hospital he became second assistant physician at the New Hampshire Asylum for the Insane. Then he went abroad and studied pathology and bacteriology, chiefly in Berlin.

He settled in Springfield in 1897 and began health work for the city two years later, holding the positions of member of the Board of Health, city physician and analytical and consulting chemist. The reorganization of the city health department, subsequent to 1901, was largely due to Dr. Emerson's labors. He started a health laboratory. He also devoted much time to the Springfield Hospital, acting as bacteriologist, establishing a first-class laboratory and enlarging the activities of the hospital.

During the war Dr. Emerson served as fuel administrator for Springfield on appointment by J. J. Storrow, administrator for the State.

He was a member of the Country Club of Springfield; George Washington Chapter, Sons of American Revolution; the Century Club, the Colony Club, the Springfield Academy of Medicine, the American Medical Association and the Massachusetts Medical Society. He was also a member of the Engineering Society of Western Massachusetts.

Dr. Emerson leaves a widow, who was formerly Louise B. Whitecomb, and a son, Richards Haskell Emerson, a senior at Harvard.

RECENT DEATH.

DR. JOHN MARTIN MALONEY died of pneumonia after an illness of a few days at his home in Springfield, December 17, 1922, at the age of thirty-seven.

He was born in Springfield in 1885, had his education in the public schools and his M.D. from the University of Georgetown, Washington, D. C., in 1907. Settling in his native city, he was an interne at the Mercy Hospital and then began a general practice.

He was a member of the Hampden District Medical Society, American Legion, Knights of Columbus and Springfield Lodge, B. P. O. E.

He is survived by a widow and two young children.

Correspondence.

JUDGE BAKER FOUNDATION.

40 COURT STREET (SCOLLAY SQUARE), ROOM 1214.

President, Frederick P. Cabot; directors, William Healy, M.D., Augusta F. Bronner, Ph.D.; treasurer, Charles L. DeNormandie; trustees, Miss Edith N. Burleigh, Judge Frederick P. Cabot, Roy M. Cushman (Secretary), Charles L. DeNormandie, Dr. Walter E. Fernald, Mrs. Jessie D. Hodder, Judge Frank Leveroni, Herbert C. Parsons, Judge Philip Rubenstein.

Boston, December 14, 1922.

Mr. Editor:

I am sending you under another cover some sample copies of the case studies which we are getting out under a grant from the Commonwealth Fund. I wonder if you would be good enough to review these, or have someone else review them, in the MEDICAL AND SURGICAL JOURNAL. We are naturally anxious to have these case studies brought to the attention of those to whom they will be of the most value. I am enclosing herewith our circular letter sent out in June, which gives in detail the plan of the series. Seven studies have already been issued, and three more are

in press. The studies, as you will note, are issued periodically, approximately two each month.

Yours very truly,
WILLIAM HEALY.

My dear Sir:

The Judge Baker Foundation has just completed five years of work. During this period there have been scientifically studied 2800 cases, many intensively, and all have been followed up. The majority have come from the Boston Juvenile Court, the remainder from a variety of sources—child welfare agencies, school people, parents, etc. The problems presented have covered not only delinquency, but also questions of education, vocation, and minor behavior difficulties.

Because of the range of problems and because of our unusually favorable opportunity for study and observation of the results of treatment, we have been able to collect a vast amount of data which we think will be of great interest to students of education in general, as well as to those interested in delinquency.

Through a gift from the Commonwealth Fund of New York, it is now possible for us to publish some of our case material. We plan, between September and June, to publish twenty actually studied cases, followed over a period of years. This series will represent varied individual differences, such as those pertaining to physical and mental make-up, the latter particularly considering matters of special peculiarities and capacities, the specific delinquency involved, the type of treatment given, and many other points.

Each study will consist of a pamphlet. For the case presentation we have evolved a new form in the hope that it will not only make the case material clearer and more interesting, but also that it will prove most valuable in its adaptation for teaching purposes: it is to be printed on the left hand page, with the discussion on the right hand page. For class work the study will be issued in loose-leaf form, in order that the student may receive only the case material. He may make his own interpretations either on the opposite blank page or on interleaving paper, and later receive the printed discussion for comparison. Follow-up facts may similarly be withheld. For other readers the entire material is intact.

The price will be \$2.50 for the series of twenty. (Rate for orders of 10 or more series is \$2.00 for each series.) The price is made possible by our gift from the Commonwealth Fund. If you wish to subscribe to the series, will you kindly let us know on the enclosed blank form very soon?

We shall be very glad to send further information if you desire it.

Very sincerely yours,

WILLIAM HEALY.

AUGUSTA F. BRONNER

[NOTE: The JOURNAL will publish a series of the case studies as submitted.]

TEST FOR PERFORATING GASTRIC ULCER.

December 13, 1922.

Mr. Editor:

Some months ago, after doing an operation in an emergency, for what we thought was an acute appendix, finding a perforation of the stomach, I wondered if any simple procedure would aid diagnosis in an obscure case like the above. As I have reason to believe it has never been used, would suggest, in obscure cases, immediately of the making small incision, the use of sterile litmus paper, and see if you get an acid reaction. If such were the case your diagnosis ought not to be hard to make. Trust-

ing that this suggestion may occasionally be of use to my professional brothers, I am

Very truly yours,

F. P. HUDNUT, M.D.

New Bedford, Mass.

In searching for information the following letter was received:

DR. F. P. HUDNUT,

New Bedford, Mass.

A thorough search of various indexes, journals and textbooks has failed to reveal any reference to the use of litmus paper as a means of diagnosing perforation of the stomach. Most pathologists depend on signs of exudation and secondary inflammation to make the diagnosis.

Very likely the use of litmus paper would show the presence of acid. However, it does not seem safe to depend on such a reaction for the diagnosis of gastric perforation.

Very truly yours,

JOURNAL AMERICAN MEDICAL ASSOCIATION.

PASTEUR INSTITUTE SCHOLARSHIPS.

December 15, 1922.

Mr. Editor:

The enclosed, from Mrs. Bellamy Storer, may be of interest to the JOURNAL readers.

Sincerely,

MALCOLM STORER.

302 Beacon Street, Boston.

A society has been founded in Paris to promote the studies of young scientists at the Pasteur Institute, by establishing scholarships to be given to French students whose means do not permit them to defray the expenses of a two years' supplementary scientific course at the Institute. Dr. Calmette is anxious to receive also at the Pasteur Institute students from foreign countries and especially from the United States. He asks if the medical and scientific schools of America would establish scholarships, to enable students to attend the courses at the Pasteur Institute during two years. These courses include micro-biology, sero-therapeutics and their practical application, also the study of the uses of radium. These students will also be allowed to follow, at the Pasteur Hospital, the most scientific treatment of contagious diseases and also the treatment of cancer by radium. The Paris committee will personally welcome the foreign students, and assist them to establish themselves. For all information please address the Marquise de Chambrun, 19 Avenue Rapp, Paris. The regular courses at the Pasteur Institute begin in January. The men connected with the Institute at present are of the highest standing in their profession. One of them is the grandson of Pasteur, Dr. Pasteur Vallery-Radot, who at the early age of thirty-six is in the first rank of the medical profession of Paris.

As to the cost of these scholarships, it is estimated that 12,000 francs a year will cover all expenses, including the courses at the Institute; at the present rate of exchange this would be about \$1000, or \$2000 for a two years' scholarship.

The centenary of Pasteur seems a fitting time to inaugurate this international association of scientific students.

WALTER REED GENERAL HOSPITAL.

Washington, D. C.

A second course in Physio Therapy will be given at Walter Reed General Hospital, Washington, D. C., beginning February 27, 1923, and extending for a period of four months. It is open to women who have had at least a two-year training in an approved school of physical education. For further informa-

tion, apply to: The Commanding Officer, Walter Reed General Hospital, Department of Physio Therapy, Washington, D. C.

JAMES B. MONTGOMERY,

Major, M. C., U. S. Army,

Director of Physio Therapy.

UNITED STATES CIVIL SERVICE EXAMINATION.

JUNIOR PATHOLOGICAL TECHNICIAN.

The United States Civil Service Commission announces an open competitive examination for junior pathological technician, the receipt of applications to close January 16, 1923. A vacancy in the Army Medical Museum, War Department, Washington, D. C., at \$1800 a year (plus "bonus"), and vacancies in positions requiring similar qualifications, at this or higher or lower salaries, will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

MASSACHUSETTS BOARD OF REGISTRATION IN MEDICINE.

Examination Held November 14, 15, 16, 1922.

Applicants examined.....	53
Applicants registered.....	26
Applicants rejected.....	27

Detail of colleges of graduation, as follows:

Middlesex College of Medicine and Surgery.....	12
St. Louis College of Physicians and Surgeons.....	7
Massachusetts College of Osteopathy.....	5
College of Physicians and Surgeons, Boston.....	4
Harvard Medical School.....	3
Tufts College Medical School.....	2
Johns Hopkins Medical School.....	2
McGill University.....	2
Washington University, St. Louis.....	1
University of Naples.....	1
Kansas City University.....	1
College of Physicians and Surgeons, Baltimore.....	1
University of Michigan.....	1
University of Dorpat.....	1
University and Bellevue Hospital.....	1
Chicago Medical School.....	1
University of Illinois.....	1
Yale Medical School.....	1
Woman's Medical College of Pennsylvania.....	1
University of Vermont.....	1
Jefferson Medical College.....	1
Georgetown University.....	1
College of Physicians and Surgeons of Columbia College.....	1
State University of Iowa.....	1

Total 53

The college of graduation of rejected applicants is as follows:

Middlesex College of Medicine and Surgery.....	7
St. Louis College of Physicians and Surgeons.....	7
Massachusetts College of Osteopathy.....	4
College of Physicians and Surgeons, Boston.....	3
Tufts College Medical School.....	1
University of Naples.....	1
Kansas City University.....	1
College of Physicians and Surgeons, Baltimore.....	1
University of Dorpat.....	1
McGill University.....	1

Total 27

APPLICANTS REGISTERED BY THE BOARD OF REGISTRATION
IN MEDICINE, NOVEMBER EXAMINATION, 1922.

Argy, William Phillip, Jr., Gallinger Municipal Hospital, Washington, D. C.
Arne, James Alexander, 521 Massachusetts Avenue, Boston, Mass.
Beals, Charles Wearne, Danvers State Hospital, Hathorne, Mass.
Bixby, Harry Irving, 538 Prospect Street, Fall River, Mass.
Burns, Patrick Stephen, 30 Candance Street, Providence, R. I.
Carruthers, Arthur Peché, 725 Cambridge Street, Cambridge, Mass.
Clay, Charles Lancaster, Lawrence General Hospital, Lawrence, Mass.
Cohen, Louis Morris, St. Francis Hospital, Pittsburgh, Pa.
Darling, Taber Manson, 28 Randolph Street, North Abington, Mass.
Davidson, Percy Barnard, Boston City Hospital, Boston, Mass.
Fisher, David, National Military Hospital, Danville, Ill.
Garton, Will Melville, United States Navy Yard, Boston, Mass.
Gross, Joseph Edward, 740 Dyer Avenue, Cranston, R. I.
Grossman, Samuel, 6 First Street, Taunton, Mass.
Halbach, Robert McCully, Pathological Laboratory, Boston City Hospital, Boston, Mass.
Hjort, Axel Magnus, 195 Audubon Road (Apartment 43), Boston, Mass.
Hoag, Lynne Arthur, 4085 Washington Street, Roslindale, Mass.
Hoberecht, Carl Albert, 35 Colonial Avenue, Dorchester, Mass.
Malamud, William, Foxboro State Hospital, Foxboro, Mass.
Rapport, Charles Harold, 270 Chestnut Street, Chelsea, Mass.
Rivero, Amancio Justo, care Y. M. C. A., Boston, Mass.
Royal, Harold Orison Fowler, Alberta Apartments (Suite 21), 24 Westland Avenue, Boston, Mass.
Shaw, Henry Alden, Psychopathic Hospital, Boston, Mass.
Spector, Benjamin, 416 Huntington Avenue, Boston, Mass.
Warrick, Will Carleton, 104 East Street, Pittsfield, Mass.
Zeckwer, Isolda Therese, Department of Pathology, Harvard Medical School, Boston, Mass.

SOCIETY MEETINGS.

DISTRICT SOCIETIES.

A list of society meetings is herewith published. This list will be changed on information furnished by the secretaries of the societies, and will appear in each issue.

Barnstable District:—Hyannis,—February 2, 1923, (Annual Meeting)—May 4, 1923.

Bristol South District:—Fall River,—May 3, 1923.

Essex North District:—Haverhill, (Semi-Annual Meeting)—January 3, 1923. Y. M. C. A. Building, Lawrence, (Annual Meeting)—May 2, 1923.

Meetings of the Suffolk District and the Boston Medical Library, at the Library:

December 27, 1922:—Surgical Meeting. "Surgical Lesions Occurring in Diabetes: Their Peculiarities and Management," Dr. Elliott P. Joslin, Boston. An account of the experience in this field of the major hospitals of Boston, by members of the staffs.

January 31, 1923:—Medical Meeting. "Epidemic Encephalitis," Dr. E. W. Taylor, Boston.

February 28, 1923:—Medical Meeting. "Colitis," Dr. Henry F. Hedges, Boston.

March 28, 1923:—Surgical Meeting. "A Review of What Surgery Can Accomplish in Diseases of the Thoracic Organs, with a Forecast of the Future," Dr. Howard Lilienthal of New York.

April 25, 1923:—Annual Meeting. Election of Officers. "The Record of the Past Twelve Years in Syphilology, with a Forecast of the Future." A series of 10-minute papers. Dr. C. Morton Smith, Boston, will preside.

The Springfield Academy of Medicine meets the second Tuesday of each month. Schedule of speakers includes the following names: Dr. Alexis Carrel, Dr. W. B. Long, Dr. J. W. Williams, Dr. W. S. Thayer, and Dr. Barton Cooke, Hist. The date for each speaker has not been assigned.

Middlesex North District:—Meeting, Wednesday, January 31, 1923.

Middlesex East District:—Jan. 24, 1923. The Nursing Problem. Speaker to be announced later.

March 21, 1923. Mental Factors in Childhood. Paper by Dr. William Healy.

April 18, 1923. Interpretation of Laboratory Findings. Papers by Dr. E. G. Crabtree and one to be announced later.

May 9, 1923. Annual Meeting.

All meetings except the annual meeting will be held at the Harvard Club in Boston. A. E. Small, Secretary.

Worcester District Meetings are scheduled as follows:

January 10, 1923.—The meeting will be held at the Worcester State Hospital, Belmont Street, at 4.15 p.m. Programme: "A Discussion of Status Thyrotoxicus-Lymphaticus and the Inherent Compensatory Possibilities," Dr. Walter Timme, New York City. Discussion will be opened by Dr. W. A. Bryan.

February 14, 1923.—The meeting will be held at the Worcester City Hospital at 4.15 p.m. The programme will consist of a series of papers by members of the staff.

March 14, 1923.—The meeting will be held at St. Vincent's Hospital at 8.15 p.m. The programme will consist of a series of papers by members of the staff.

April 11, 1923.—The meeting will be held at Memorial Hospital at 8.15 p.m., and the programme will consist of a series of papers by members of the staff.

May 9, 1923.—Annual meeting and banquet.

STATE, INTERSTATE AND NATIONAL SOCIETIES.

NEW ENGLAND PEDIATRIC SOCIETY.—The following are the dates for meetings the coming season. Each meeting is on the second Friday of the month at the Boston Medical Library: January 12, February 9, March 9, April 13 and May 11.

December 26-30, 1922.—American Association for Advancement of Science meets in Boston.

January, 1923:—Massachusetts Society of Examining Physicians (date and place undecided); Hilbert F. Day, Secretary. Massachusetts Association of Boards of Health, January 25, Annual Meeting, Boston; W. H. Allen, Mansfield, Mass., Secretary.

January, 1923:—Boston Association of Cardiac Clinics. Meeting January 18, 1923, at 8.15 p.m. Boston Lying-in Hospital (New Hospital). Subject: Pregnancy and Heart Disease.

January, 1923:—Boston Medical History Club will meet January 15, 1923.

February, 1923:—New England Dermatological Society Meeting, February 14, 1923, at 8.30 p.m., in the Skin Out-Patient Department, Massachusetts General Hospital; C. Guy Lane, Secretary.

February, 1923:—Boston Medical History Club will meet the third Monday of this month.

March, 1923:—Massachusetts Society of Examining Physicians (date and place undecided); Hilbert F. Day, Secretary.

March, 1923:—Boston Association of Cardiac Clinics. Meeting March 15, 1923, at 8.15 p.m. Boston City Hospital. Subject: Prevention and Relief of Heart Failure.

March, 1923:—Boston Medical History Club will meet the third Monday of this month.

April, 1923:—New England Dermatological Society Meeting, April 11, 1923, at 8.30 p.m., in the Surgical Amphitheatre, Boston City Hospital; C. Guy Lane, Secretary. Massachusetts Association of Boards of Health, April 26, 1923, Boston; W. H. Allen, Mansfield, Mass., Secretary.

April, 1923:—Boston Medical History Club will meet the third Monday of this month.

May, 1923:—Massachusetts Society of Examining Physicians (date and place undecided). American Pediatric Society Meeting, May 31, June 1 and 2, 1923, at French Lick Springs Hotel, French Lick, Ind.; H. C. Carpenter, Secretary.

May, 1923:—Boston Association of Cardiac Clinics. Meeting May 17, 1923, at 8.15 p.m. Children's Hospital. Subject: Rheumatism and Chorea and Heart Disease.

June, 1923:—American Medical Association, San Francisco, June 25-29, 1923; Alexander R. Craig,* Chicago, Ill., Secretary.

July, 1923:—Massachusetts Association of Boards of Health, July 26, Nantasket; W. H. Allen, Mansfield, Mass., Secretary.

*Deceased September 2, 1922.



THE BOSTON Medical and Surgical JOURNAL

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THURSDAY, JULY 6, 1922

Published weekly in Boston
at 126 Massachusetts Avenue

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THE MASSACHUSETTS MEDICAL SOCIETY

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THE NEXT ANNUAL MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY WILL BE HELD IN PITTSFIELD, TUESDAY AND WEDNESDAY, JUNE 12 AND 13, 1923.

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SURGICAL CLINICS OF NORTH AMERICA

Clinic of Dr. Albert J. Ochsner, Augustana Hospital.
Removal of Renal Calculus from Pelvis of Floating Kidney, the Second Kidney Being Absent.

Clinic of Dr. Allen B. Kanavel, Wesley Memorial Hospital.
Retropharyngeal and Posterior Mediastinal Abscesses.

Clinic of Dr. Charles Louis Mix, Mercy Hospital.
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Clinic of Dr. Albert E. Halstead, St. Luke's Hospital.
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Surgical Treatment of Carcinoma of Colon.

Clinic of Dr. Hugh McKenna, St. Joseph's Hospital.
Aneurysm of Popliteal Artery.

Clinic of Dr. Carl R. Davis, Presbyterian Hospital.
Hoesigmoidectomy.

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Late Summer Type. Patients whose hay fever develops in mid-August and continues until frost should be tested with pollens of local importance—primacy being given to the long distance wind pollinated plants, e.g., ragweed. However, where contact is unavoidable, as on a farm, the short distance wind pollinated plants, e.g., corn—and the insect pollinated plants, e.g., sunflower, which are also atmospheric—cannot safely be ignored.

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A NEW WORK

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nerve histology; it gives experimental nerve surgery and its practical application; embryology of peripheral nerves and plexuses in its relationship to atypical palsies and failures of recovery otherwise unexplainable; it gives the author's methods and the factors which determined them.

It appeals to the *Neurologist* because it places before him the most recent work on nerve histology, specially that of nerve degeneration and regeneration; it includes the embryologic and phylogenetic development of peripheral nerves with special reference to plexus formation and the neurotization of the various muscle groups; it gives many of the anomalies of nerve distribution and the mechanisms of their occurrence; it presents a consistent evolutionary attitude toward the human peripheral nervous system; it never loses sight of the fact that the peripheral nerves are a part of the central nervous system.

The work is magnificently illustrated with 217 illustrations, eight of which are in colors. In addition, there are 20 charts.

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